

ARMY

APRIL 1956 50¢



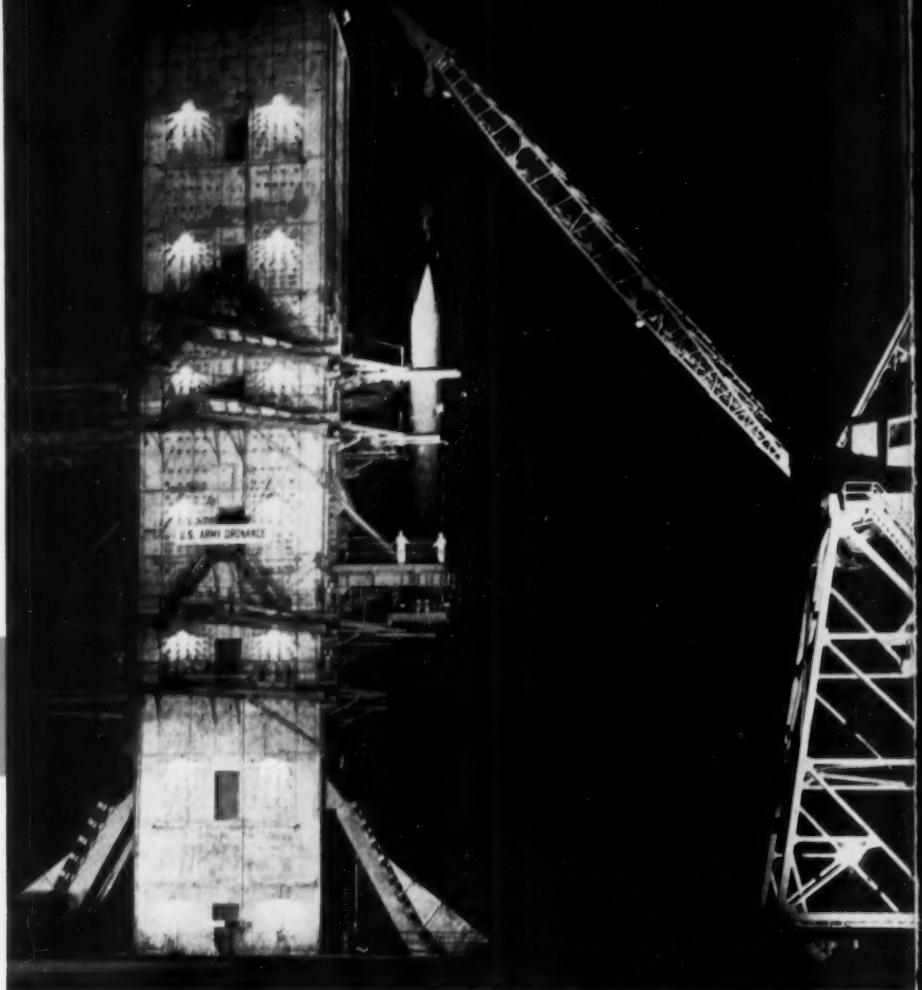
**Lt. Gen. S. D. Sturgis—
Construction Power
Is Combat Power**

**SFC. Lloyd C. Pate—
Survival Lies
in Training**

On the Way to the IRBM

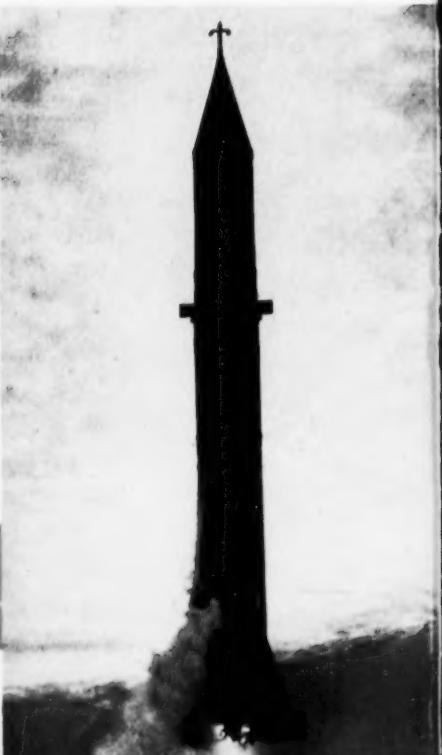
These are the first photographs released of the Army's Redstone ballistic missile, developed by the highly advanced team of scientists and engineers the Army has maintained since the end of the Second World War. The Army's IRBM will be developed by the same team.

Searchlights spotlight the Redstone missile as it is positioned into the towering static test stand at Redstone Arsenal



At the Army Ordnance test station at Patrick AFB, Fla., where guided missiles are test fired, the Redstone ballistic missile is fueled and checked for a test

The camera catches the Redstone as it drives through the stratosphere during a test firing





THE DEHAVILLAND UI-A OTTER

In Service with the United States Army

The Otter can carry 10 passengers or 1 ton of cargo for 500 miles range.
It is at home wherever 1000 feet of landing strip is available.

Designed and built by

THE DE HAVILLAND AIRCRAFT OF CANADA, LIMITED

Postal Station "L", Toronto, Ontario

4-56



ARMY H-34 CARRIES 2½-TON HOWITZER—At Fort Sill, Okla., a big Sikorsky H-34, newest member of the Army aviation family, carries a 105mm howitzer. This was the

first time an artillery piece of this weight, about 5000 pounds, has been delivered by helicopter ready to fire. The H-34 can airlift 17 combat-equipped soldiers.

AROUND THE WORLD WITH SIKORSKY HELICOPTERS



AIRBORNE BULLDOZER—Flying from the escort carrier USS *Siboney*, a Marine Corps HRS helicopter lifts a bulldozer during exercises in the Atlantic. The HRS is a version of the Sikorsky S-55, used all over the world in industry, in passenger, cargo and mail service, and in many armed forces.



LARGE H-34s FOR RCAF—Six new Sikorsky H-34s have been accepted by the Royal Canadian Air Force, the first S-58 types delivered other than to the U. S. forces. The RCAF also flies ten S-55 helicopters, the type operated so successfully under extreme conditions in the arctic, tropics, and remote areas.



HELICOPTER HISTORY



R-5 LIFTS 18 MEN

On Jan. 10, 1946, this Army Sikorsky R-5 set a world record by lifting 2538 lbs. Above, it illustrates this capability by carrying 18 men. On the same day it flew to a new altitude record of 21,000 feet, almost doubling the previous 11,243-foot record. It also set a speed record of 114.6 mph. A Sikorsky S-59 now holds the official world speed record of 156.005 mph.

IN CALIFORNIA FLOODS—Helicopters went into action quickly and efficiently to save lives and to transport rescue workers, medicine, and supplies in December floods in California, as in Northeast floods earlier in the year. Above, a USAF Sikorsky H-19 of the Air Rescue Service lands in the only spot in Guerneville, Calif., not inundated. Helicopters from the other services also flew hundreds of mercy missions in the disaster. In floods and other emergencies, the versatile helicopter is a key factor in relief work.



SIKORSKY AIRCRAFT

BRIDGEPORT, CONNECTICUT
One of the Divisions of United Aircraft Corporation

ARMY

APRIL 1956
Vol. 6 No. 9

Published by the ASSOCIATION OF THE UNITED STATES ARMY

PUBLISHER

Col. Arthur Symons, Arty-USAR

EDITOR

John B. Spore

BUSINESS MANAGER

Col. Robert F. Cocklin, Arty-NGUS

Associate Editors

Brig. Gen. Charles S. Harris, USA-Ret.

N. J. Anthony

Contributing Editors

Brig. Gen. Donald Armstrong, USA-Ret.

Maj. Orville C. Shirey, Inf-USAR

Membership & Circulation

D. A. Mulloy

Assistants

Esther E. Bennett

Doris Montgomery

Mary F. Grant

EDITORIAL POLICY

ARMY is a professional military magazine devoted to the dissemination of information and ideas relating to the military art and science representing the interests of the entire Army. ARMY strives to—

Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.

Advance the status of the soldier's profession.

(Adopted by the Executive Council of the Association of the U. S. Army, 21 June 1954)

THE BIG PICTURE

- On the Way to the IRBM Cover 2
Construction Power Is Combat Power Lt. Gen. S. D. Sturgis, Jr. 14
Chaotic Command Lt. Col. Melvin C. Helfers 22
Department of the Army Command Post

An ARMY magazine Photorecord 36

- No Place for Glory Hunters Thomas M. Johnson and Col. R. Ernest Dupuy 44

MEN & METHODS

- Air Defense by Missile Master 18
Survival Lies in Training SFC Lloyd C. Pate 20
It's Not Your Outfit, Captain Captain Charles P. Skinner 25
Marching Fire Col. Edwin B. Crabill 28
Aeromedical Evacuation Lt. Col. Spurgeon H. Neel, Jr. 30
Integrate Your CBR Training Lt. Col. Walter L. Miller, Jr. 34
Balloon Ride Over the Circus Lt. Col. Daniel T. Chapman 56
Death and Humor Lt. Col. Robert A. Scruton 60

DEPARTMENTS

- The Month's Mail 5 The Month's Reading 42
The Army's Month 9 Irons in the Fire 59
Cerebrations 38 The Month's Books 65

AUSA CP 70



The Month's Cover

These are not soldiers of the future but they exist today, as Sp-2 Leon V. Lawrence who made this photograph at Fort Bliss, Tex., can testify. The men are Pts. Jim B. Pierson and Neil Baltzell of the 601st Field Artillery Missile Battalion and they are refueling a Corporal guided missile. This is, of course, a U. S. Army photograph by the Signal Corps.

ARMY is published monthly by the Association of the United States Army. Publication date: 25th of preceding month. Publication, Editorial and Executive Offices: 1529 Eighteenth Street, N.W., Washington 6, D. C. Copyright©, 1956, by Association of the United States Army. Entered as Second Class Matter at Washington, D. C., additional entry at Richmond, Va., under the Act of March 3, 1879. Articles appearing in ARMY do not necessarily reflect the opinions of the Department of the Army, the officers and members of the Executive Council of the Association of the U. S. Army, or the editors.

RATES. One year \$5.00; two years \$9.00 when paid in advance; three years \$12.00 when paid in advance. Subscriptions for libraries, civilian groups or activities, and others not eligible for membership in the Association of the U. S. Army \$5.00 per year. Foreign subscriptions \$6.00 payable in advance. For other rates write Circulation Manager, 1529 Eighteenth Street, N.W., Washington 6, D. C.

ADVERTISING information and rates available from the Business Manager or any of our advertising representatives, who are:

New York office—19 West 44th Street, Murray Hill 2-5254.

San Francisco office—Duncan A. Scott Co., Mills Bldg., Garfield 1-7950.

Los Angeles office—2978 Wilshire Blvd., Dunkirk 8-4151.

ARMY

THE MONTH'S MAIL

On Demolishing Straw Dummies

• Publication of "\$13 Billion Scarecrow" by Lloyd Norman [February] was a disservice not only to SAC and USAF but also to the many Army personnel who take pride in their professional military magazine.

In the rambling polemics of the first part of his article, the author does a monumental job of propping up and demolishing a succession of straw dummies. I doubt seriously that there were responsible persons who entertained hopes as optimistic for SAC's curative powers as those postulated in such general premises as: ". . . we hoped that somehow our atomic airpower superiority would . . . perhaps even liberate some of the captive Soviet satellites." Although SAC may be ". . . only a deterrent—a kind of peace insurance" against large-scale aggression, it is insurance of the most indispensable variety and represents a bargain investment at \$13 billion, considering a gross national product of nearly \$400 billion.

In view of the fact that the author offers no supporting evidence, the constructive portion of the study can be reduced to his conclusion that SAC is too large: "By the end of 1957, the Air Force will have achieved its goal of 137 combat wings with enough jet bombers to blow out the Soviet's brains more than twice." Obviously, the variables, upon which the number of jet bombers required is dependent, include not only estimated losses in event we are forced to sustain a surprise attack but also the enemy capability to prevent penetration by our bombers. While quoting Secretary Quarles as having stated that sufficient striking power not numerical comparison is the criterion for the determination of the size of our bomber fleet, Mr. Norman maintains that we nonetheless are overbuilding SAC by relying on absolute numerical preponderance. I hope sincerely that the author will make available the information, if any, on which he bases his surprising conclusion.

Force levels and strategy are proper subjects for critical examination, but are deserving of far more serious and factual study than that provided in "\$13 Billion Scarecrow." The most unfortunate aspect of Mr. Norman's article is that it is precisely the type of criticism and imputa-

tion that maintains interservice rivalries at a white heat.

CAPT. R. G. GARD, JR.
264 South Road
Bedford, Mass.

Thank You, Sirs

• The February issue of **ARMY** has just reached me, and I want to take this opportunity to congratulate you on it. It certainly represents a new departure and format, and has the flair and attractiveness that will win many friends.

Congratulations and best wishes for a very successful year, and I shall be looking forward to each issue.

CAPT. J. R. THURMAN
6314 McClellan
Fort Leavenworth, Kans.

• I wish to congratulate you, your staff, and the Association upon the first issue of our magazine under the new name. For the first time in years I have read it from cover to cover, and liked practically everything in it. Particularly I liked the reprint of the article by Major Burns. Reproduction confirmed my judgment of 1940 when I submitted it to *Reader's Digest* with the suggestion that it merited nation-wide distribution.

As one of the longest subscribers to the *Infantry Journal* I hated to see the old name lost in the shuffle, but the mergers have obviously been so advantageous that there is no room left for sentiment. In the first issue under the new name you people have set a standard which will give you much pain to maintain. I wish you success. Keep me on the R&B list until my executrix tells you different.

COL. CHAS. C. LOUGHIN
225 Clifton Road
Rocky Mount, N. C.

• As a new member of the Association, allow me to join in congratulating you on **ARMY**. Articles are clear, concise, informative and, most important, readable. The magazine serves as a springboard for general information, constructive ideas, and current reports on the Army, and is thoroughly enjoyed.

Major Boatner's "Should Army Officers Write?" (February) pinpointed a thought I often reflected upon. I believe a good many officers want to put their thoughts on paper. They don't appear to lack the time, but are rather ignorant of



*the Fatigue Cap that never shows Fatigue!

And No Wonder! It keeps you looking sharp on the toughest duty! Stands any abuse. Collapse it, step on it, sit on it—it springs right back into shape—no extra stiffeners required!

- WON'T WRINKLE
- WON'T SAG

Wind resistant. water repellent
Can be dry cleaned.

INSIST ON THE NAME
***Spring-Up**
ON THE RED AND GREEN LABEL
INSIDE YOUR CAP
IT IS YOUR GUARANTEE

Ask for it at your P.X.

If not available, order by mail. Sent prepaid anywhere in the world.

ONLY \$2.00 postpaid

Be Sure—Specify your size

#8590 with inside ear flap

#8593 without flap

Write for Quantity Prices

*Patent applied for.

Louisville
CAP CORP.

303 S. 30TH STREET
LOUISVILLE 12, KENTUCKY

We've been looking for you

Make sure you continue getting
your copy of **ARMY**. Send your
change of address to:

CIRCULATION MANAGER
1529 Eighteenth St., N.W.
Washington 6, D.C.

the opportunities offered and the know-how of writing for publication. Here perhaps the services are at fault. The Army's desire for its people to write should be constantly emphasized, and they should be told how to process articles. Maybe the annual IG would be the place for it. Also, efficiency reports might note an officer's initiative in writing for publication. Certainly COs should stress the opportunity, and take the lead themselves.

With more D/A emphasis and encouragement, and perhaps with the establishment of a citation for performance, I believe there would originate a sudden rash of writing from which many excellent articles could be published. There will be many who won't see their thoughts on the printed page, but they will have the satisfaction of knowing they have contributed. By further contribution they might eventually be able to point with pride to their by-line.

CAPT. KEITH A. GLASGOW
Hq Ord Tk Auto Comd
Detroit 9, Mich.

Gumption and Guts

• The other day I received a letter from General Charles E. Kilbourne, Retired. In it he said:

"Some sixty years of observation have convinced me that the following are necessary to success: opportunity for respon-

sibility; the gumption to see it; the guts to take it whether willing or not; putting the job first every day; making mistakes and correcting them in time; letting each mistake be a lesson; criticizing no one unless you have done as difficult a job better."

I have never heard this expressed exactly like that but it certainly rings true and I think it would be an inspiration to many officers to read it.

Lt. GEN. F. L. PARKS
CG, Second Army
Fort Geo. G. Meade, Md.

• We thank General Parks, who retired on 29 February, and General Kilbourne, who consented to our publishing this comment.

Proud to Be 'Unrealistic'

• As a member of the class of 1954, USMA, I was one of the "unrealistic," and chose Ranger training. After months of duty with a Nike battery, I have reflected on my choice and do not regret it. Like quite a few of my classmates, I felt two emotions when informed of Ranger-Airborne requirements: Why should I as an artillery officer be required to go through a school set up for infantrymen? How will this new requirement help me as an officer?

Never having considered myself a "self-

styled hard guy," I chose Ranger training to gain as much as I could. While training as a Ranger I met and gained much from many fine reserve officers. I served under some of the best officers it has been my good fortune to know. The feeling that most of the officers got from Ranger 7 was one of self-confidence and a greater appreciation of both our own branch and that of the infantryman.

I now find myself working doubly hard, first to uphold the prestige of West Point, and to make people look up to the "black-and-gold shoulder tab" I'm proud to wear. I feel that the prestige of the Ranger-Airborne graduate will not drop in the least. Speaking for myself, I believe those eight weeks could not have been used for any better training.

Lt. MARK A. ORMSBY
485th AAA Msl Bn
Chicago 37, Ill.

Mater's Matter

• Major Mater's Cerebration (February) left me cold. Had he taken the time to pen his unit advisor a simple note, like "What does this order mean?" he would have been enlightened. Instead, he chose to work up an article of 400-odd words (a rap at the Active Army) which merely served to demonstrate his ignorance of Army administration.

As a self-admitted ex-battalion S1, with all those "years of Army service," he had the alternative of writing his unit advisor. He could have consulted SR 140-133-1, the authority so nicely furnished by his military district headquarters in the three-line order which mystified him.

Lt. RAZEAL NASH
205-A Christian Lane
Fort Benning, Ga.

People Never Learn

• In the February issue you published a letter, "Curtains for the Army?" by SP3 Henry M. Lott. Lott's argument is interesting, not from its novelty, but from the fact that it seems people never learn. I often heard the same argument from Air Corps officers twenty-five years ago: "When the next war comes we [the Air Corps] will have it won before the Army gets mobilized." In other words, the Army was superfluous.

Lott cites Berlin, but neglects to say that the mere fact that Berlin was in ruins did not obviate the necessity of infantry taking the ground then held by the Germans. He also is apparently ignorant that operations such as Guadalcanal and the other islands up the line to Okinawa were Army operations with Navy and Air furnishing transportation and support.

Okinawa especially could not have been taken by nuclear weapons alone. I was there, and know how the enemy was dug in.



We take pleasure in announcing that

GENERAL JOHN E. DAHLQUIST, U.S.A. Ret.

Formerly Commanding General Continental Army Command
is now associated with our firm.

General Dahlquist will be in charge of a new Armed Forces Department, created specifically to provide reliable investment service for members of the Army, Navy, Air Force and Marine Corps. Particular emphasis will be placed upon intelligent planning for steady capital accumulation, by means of regular investment in either individual securities or mutual funds. Headquarters for this department will be located in our Washington, D.C. office.

HARRIS, UPHAM & CO

Members New York Stock Exchange
and other leading security and commodity exchanges

1505 H Street, N. W., Washington 5, D. C.

Telephone: Executive 3-2300

Main Office: 120 Broadway, New York 5, N. Y.

35 offices from coast to coast

STOCKS • BONDS • COMMODITIES • MUTUAL FUNDS

I am quite willing to stick my neck out and make a prediction. SP Lott mentions "atomic warheads." With the exception of a few common atomic bombs dropped in spots where they will do little damage except to morale, the Soviets will drop no nuclear or thermonuclear weapons on this country. They want our country as nearly intact as possible. It would be asinine to wipe out our industrial plants when they can be taken intact.

Little has been said about "nerve gas," but it is real, and is a very real threat. Both the USSR and we have it. It is colorless, odorless and tasteless. So far, mass detection apparatus have not been devised. It kills quickly and certainly in minute doses. It can be easily brought into the country by means which we need not discuss here, and released when and where an enemy desires. Most of the population of any administrative or industrial center can be killed almost before they know what is happening. By the same token, SAC can be immobilized before it can get off the ground, even if it should realize that the time has come.

This can be done by saboteurs within our country: *ground* personnel. This is what we must watch for—not SP Lott's "command of the air."

COL. JOHN H. SCHAEFER
Medical Corps, Retired

535 S. Curson Ave.
Los Angeles 36, Calif.

Chow Talk

• I am intrigued by Major Conner's article in the February issue on food service, having spent several years as 941.70 (new MOS) in the 47th Division, both at home and at Camp Rucker, during the Korea action, and before that in a regimental service company.

In some respects I can see the Major's points, but I remember the meals concocted when mess sections were given a quarter of beef, a sack of potatoes, a sack of beans, some bacon and maybe sow belly, and told to go to it. Oh, yes, I forgot to add a box of prunes, some dried apples, sugar, crackers, and two ounces of butter a day, with a liberal supply of syrup and such basic condiments as were necessary. Maybe food service has been overplayed, and I'll admit some of its personnel are not up to par.

I remember a mess sergeant at Fort Snelling who helped evolve what we called the Minnesota Plan of Messing (a forerunner of the Master Menu of today). He ran the post commissary and supervised some good garrison messes.

I have seen many poor garrison messes, due primarily to improperly supervised or trained mess personnel. It was not uncommon practice to assign the poorest NCO as mess sergeant. He didn't fit in a platoon, but he had a family and *might* make

a mess sergeant. I've seen cooks made the same way. I have seen some good messes too, where the mess sergeant and cooks knew their business and turned out wonderful meals from inadequate supplies. I have also seen some meat cutters-butchers who spoiled more meat than necessary, through improper cutting.

The Hennessy Committee attempted to remedy some of the bad conditions. How well they succeeded some of us oldsters know. Food service had tried to make trained mess personnel available, and put them in kitchens. At Rucker it was difficult to get COs to send men to school, in spite of the fact that we had a post cooks' school, but we got by.

I never understood the attitude of some commanders. They wanted trained riflemen, gunners, radio men, and the like, but apparently they overlooked the fact that morale rests in the kitchen, with good food served from it. They seemed to overlook the fact that a good mess is the responsibility of the CO. He can assign a junior as mess officer, but the lieutenant is usually handling two or more other chores.

Eating off china is nice, but it's tough to get KPs out of a first sergeant. We still have men who consider KP as punishment, in spite of the fact that it has been a duty-roster assignment. The wast-

age with "family style" eating is greater than when trays are used, and a proper education of the serving line can make for an attractive tray.

As for "early chow," is it proper to serve a hot meal to one, two or a half dozen and at the same time keep warm the food for the rest of the unit? I have yet to see, except possibly in the field, where the CO or any other necessary personnel, including the CQ, didn't buck the line, the CO or other officers sit at an officers' table and eat off dishes. In this food service cooperates. One thing we must keep in mind is that food service rarely enters into the unit's administration. So far as the mess goes, the company commander operates it as he sees fit.

In my thirty years of service I haven't met too many medical officers who understood troop feeding, kitchen inspection, or kitchen sanitation. I don't mean to imply that they couldn't learn as others have. I have seen too many inspections by people who didn't know what they were looking for, or how to find it.

I'll admit that possibly food service has slipped at times, but it has done an all-around good job.

MSP Paul Redpath
47th QM Co
Minneapolis, Minn.



Typical of the advanced research and development projects currently being carried out successfully by Kaman Aircraft is this drone helicopter. The technical problems of remote control are more complex with a helicopter than with fixed-wing aircraft because of the 'copter's ability to fly in every direction at varying speeds, as well as to hover in flight. Kaman engineers solved these complicated problems by designing an entirely new electronic control system, miniature mechanical system and small automatic pilot. Kaman is proud that most of its 10 years have been devoted to the National Defense effort to keep the free world free.

KAMAN

THE KAMAN AIRCRAFT CORP., BLOOMFIELD, CONN.



Avco Crosley helps bring a new anatomy of flight to life

Today, new breeds of planes are filling America's skies! In a brief decade of bold experimentation inspired by the military, the aircraft industry has created swept-winged, smooth-skinned new speedsters of almost unrecognizable sleekness.

Throughout this spectacular evolution, Avco's Crosley division has contributed "components," even entire airframes—in ever-mounting volume, for everything from small utility planes to giant transcontinental bombers. And to reproduce aircraft anatomy with perfect fidelity to design, a new Crosley method (the Avco Axiomatic System) guarantees complete interchangeability of components, even from the first unit built.

Through advances in airframes—as well as in scores of electronic instruments—Avco Crosley translates practical engineering experiences into finer products and brilliant new possibilities . . . for an America strong in peace.

3 Crosley booklets (Aircraft Structures, Honeycomb Concept, Axiomatic) detail ways Crosley's airframe capabilities can help you. Write for them to: Avco Defense and Industrial Products, Stratford, Conn.

Andrew Szyde

avco
Crosley

Avco Defense and Industrial Products combine the scientific and engineering skills, and production facilities of three great divisions of Avco Manufacturing Corp.: Crosley; Lycoming; Advanced Development—to produce power plants, electronics, airframe components, and precision parts.

defense and industrial products

FOR A COPY OF THIS STOKEE DESIGN, SUITABLE FOR FRAMING, WRITE TO PUBLIC RELATIONS DEPT., AVCO DEFENSE AND INDUSTRIAL PRODUCTS, STRATFORD, CONN.

THE ARMY'S MONTH

New 'New Look'

THE only significant public comment to come out of the secluded conference of the Joint Chiefs of Staff in Puerto Rico was Defense Secretary Wilson's observation that it was a "fair assumption that when you get some new weapons you have to review" roles and missions. However, there is yet no indication that the JCS came to any firm decisions as to alterations in the long outdated Key West agreement of 1948 or whether Mr. Wilson would go along with any changes the JCS might propose.

The "new weapons" Mr. Wilson alluded to are, of course, guided missiles, not only the IRBM and ICBM which make the headlines, but shorter-ranged members of this growing and versatile family. But these weapons are not the only reason why changes in the Key West paper are necessary. The usefulness of aircraft that fly "slow and low" and don't require prepared landing strips indicates that their rapid development will dictate changes in roles and missions. What seems to be happening proves again that new weapons and equipment have a stronger influence on ways of operating than formal agreements.

This also suggests that Senator Symington's committee to investigate U. S. air strength may be missing the target by confining its sole interest to an examination of the capabilities of the Strategic Air Command. As is well known, Mr. Symington has long been dissatisfied with the rate of growth of SAC and more recently has been insistent that more effort be put into producing ballistic missiles.

If a public or semi-public examination of the nation's defense effort is called for, it should cover the whole subject and not one segment of it. A balanced and thorough inquiry might reveal that SAC instead of suffering from malnutrition is overly fat and its assigned missions could be accomplished with less than it has. When one thermonuclear bomb in one air-

plane can devastate a city or destroy an enemy air base, it seems reasonable to suggest that many of SAC's troubles, such as its inability to maintain sufficient numbers of trained mechanics, might be solved by a realistic examination of how much is enough. The demands national defense places on American citizens are so great that building either beyond requirements or beyond resources to maintain and use it would be gross negligence. The "lean and hungry look" should be an objective of an air force as it is of an infantry division. There has never been a thorough and searching inquiry into the USAF's use of manpower similar to the many inquiries directed at the Army. Did you ever hear of a "Wing Slice" study similar to the loud discussion a few years ago of the Army's "Division Slice"?

USEFUL as an unbiased study of SAC's mission, capabilities and requirements would be, the picture would be incomplete without a similar examination of the Army and Navy.

The need for this is emphasized by the knowledge that while SAC's principal mission of deterrence will have failed if it ever has to be committed to battle, the other services are likely to be tested from time to time. The Soviets' vast capacity for international mischief, presently on display in the Middle East, requires diplomacy backed up by military power capable of exhibiting or exerting selective force according to the situation.

The recent British statement on defense makes these points very effectively. "The forces required to support our [British] present strategy have, therefore, [these] four roles to fulfil," the statement says:

"(1) They must make a contribution to the Allied deterrent commensurate with our standing as a world power. This means not only building up and maintaining a nuclear stockpile and the means of delivery, but also contributing to the maintenance of NATO's defensive effort by land, sea and air.

"(2) They must play their part in

This appealing way of getting publicity for the Army Reserve program meets the approval of **ARMY** magazine since it gives us a chance to show you Miss Lee Ann Meriwether's pretty smile. While in Louisville Miss Meriwether, who was Miss America of 1955, was named Miss Kentucky Army Reserve by Col. James R. Wheaton, Chief of the Kentucky Military District (*left*), and W. Grant Lewis, President of Louisville Chapter, ROA. The two stalwarts behind Miss Meriwether are Sgt. Harold Atcher and Pfc. Albert Heister, two of her six-man escort.





Officers of the new German Army are attending U. S. service schools. This group, at Aberdeen Proving Ground, Md., are examining a U.S. tank.

the cold war. By their presence they can contribute to the stability of the free world and the security of overseas territories whose peaceful development may be threatened by subversion whether overtly Communist or masquerading as nationalism.

"(3) They must be capable of dealing with outbreaks of limited war should they occur.

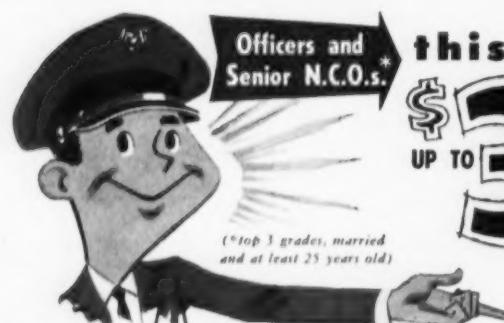
"(4) They must also be capable of playing their part effectively in global

war should it break out. This will have to include support to the civil authorities."

Any inquiry into the U. S. defense posture as of 1956 should certainly embrace these four points. And as a further guide line the inquirers could well adopt this further comment from the British paper: "If global war were to break out it would . . . be a struggle for survival of the grimdest kind. Its course would be unpredictable after

the initial intense phase. For this reason we must, in the military field, put the emphasis on forces which are flexible, mobile, well-trained, well-equipped, and versatile. They must be ready for immediate action; we can no longer rely on meeting our needs for men or munitions by mobilizing reserves of untrained manpower or of industrial capacity."

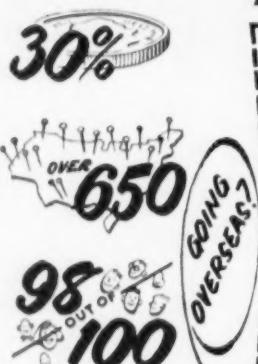
THIS kind of refreshing acknowledgement that the course any war of the future may take is unpredictable is something we Americans could use more of. We should be less sure that the next war is going to be short, clean (for us) and fought to a finish in a few hours or days. In 1939 Marshal Gammelin's Army, snug in its Maginot fortress, was very sure it could predict the course of another war. And where is a man who correctly predicted the course of the Korean conflict in advance? Many saw the possibility of a conflict in Korea between 1945 and 1950, but if any soldier, sailor or airman had written a script for it, he would have been far off course. For war is unpredictable and even the next "Korea" will be unlike the last.



SAVINGS You save up to 30% from standard rates because you eliminate from your premium the cost of maintaining the customary agency system and all membership fees.

SERVICE You are protected by the Standard Automobile Policy. You also enjoy immediate claim service from over 650 professional claim representatives located in every sizeable city in the U. S. and its possessions.

SECURITY Year after year, 98 of every 100 policyholders renew their auto insurance with Government Employees Insurance Company. Experience has proven to over 350,000 policyholders that there is no finer insurance at any price.



this COUPON can SAVE YOU \$30 UP TO \$100 OF EVERY YOU SPEND ON AUTO INSURANCE

GOVERNMENT EMPLOYEES INSURANCE COMPANY
GOVERNMENT EMPLOYEES INSURANCE BLDG., WASHINGTON 5, D. C.

Name _____ Age _____

Single Married (No. of children _____)

Residence Address _____

City _____ Zone _____ County _____ State _____

Location of Car _____ Rank or Grade _____

Yr.	Make	Model (Dix., etc.)	Cyl.	Body Style	Cost	Purchase Date	<input type="checkbox"/> New	/ / <input type="checkbox"/> Used
-----	------	--------------------	------	------------	------	---------------	------------------------------	-----------------------------------

1. Additional operators under age 25 in household at present time:

Age	Relation	Marital Status	No. of Children	% of Use

2. (a) Days per week auto driven to work? One way distance is _____ miles.
 (b) Is car used in any occupation or business? (Excluding to and from work) Yes No

3. Estimated mileage during next year? My present policy expires _____

Include information and rates on overseas insurance in country of _____

MAIL TODAY FOR RATES

No Obligation • No Agent Will Call

065



**GOVERNMENT EMPLOYEES
INSURANCE COMPANY**

Capital Stock Company not affiliated with U. S. Government
Washington 5, D. C.

ON THE JOB . . . not "on the way"

CONDITION GREEN . . . PREPARE TO BLAST OFF! Space talk is sure to become a reality, as the Air Force continues to design and develop a flying saucer. And Air Force personnel — like the control tower operator in this artist's conception — are being trained now as part of the experimental program.

It's important that these key men get to new assignments the fastest possible way . . . via the speedy, dependable Scheduled Airlines. So next time you're moving one man or many, call a Scheduled Airlines representative — compare the cost, speed and dependability of Scheduled flight with any other means of travel.



10% DISCOUNT for official travel on TR's

Dependable, Scheduled Service Saves Millions of Valuable Man Hours for the Military



THE CERTIFIED **Scheduled Airlines** OF THE U.S.A.

ALASKA AIRLINES
ALLEGHENY AIRLINES
AMERICAN AIRLINES
BONANZA AIR LINES
BRANIFF AIRWAYS
CAPITAL AIRLINES
CENTRAL AIRLINES

COLONIAL AIRLINES
CONTINENTAL AIR LINES
DELTA AIR LINES
EASTERN AIR LINES
FRONTIER AIRLINES
LAKE CENTRAL AIRLINES

LOS ANGELES AIRWAYS
MACKAY AIRLINES
MOHAWK AIRLINES
NATIONAL AIRLINES
NEW YORK AIRWAYS
NORTH CENTRAL AIRLINES
NORTHEAST AIRLINES

NORTHWEST ORIENT AIRLINES
OZARK AIR LINES
PACIFIC NORTHERN AIRLINES
PIEDMONT AIRLINES
RESORT AIRLINES
SOUTHERN AIRWAYS

SOUTHWEST AIRWAYS
TRANS-TEXAS AIRWAYS
TRANS WORLD AIRLINES
UNITED AIR LINES
WEST COAST AIRLINES
WESTERN AIR LINES
WIEN ALASKA AIRLINES

Over one-fourth of the people in the U.S. live within range of atomic missiles that could be launched in a sneak attack by

Modern submarines, able to make long voyages while completely submerged, and to launch nuclear missiles in a sneak attack, are among the most sinister weapons of this atomic age.

To safeguard our nearly twelve thousand miles of coastline against sub invaders, the U.S. Navy for ten years has patrolled immense areas of the ocean, in fair weather and foul, in Lockheed P2V *Neptunes*. Special submarine detection gear enables the P2V, despite darkness or fog, to pinpoint even submerged subs. And pro-

ENEMY SUBS!

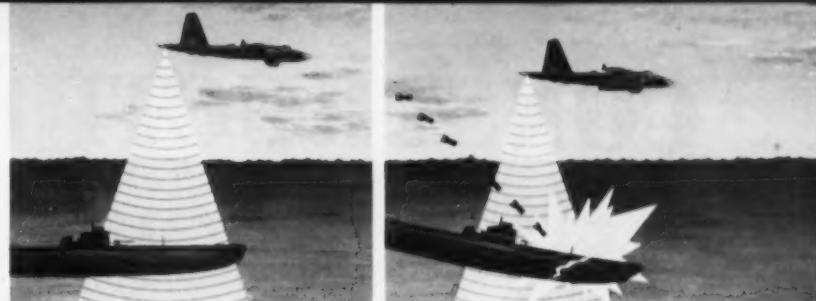
A CRUCIAL U.S. DEFENSE PROBLEM

Official R.A.A.F. photo (below) shows war games "attack" on British sub by Royal Australian Air Force *Neptune*. (P2V's are in military service for the following friendly countries: Australia, Canada, Great Britain, France, Japan and the Netherlands.)

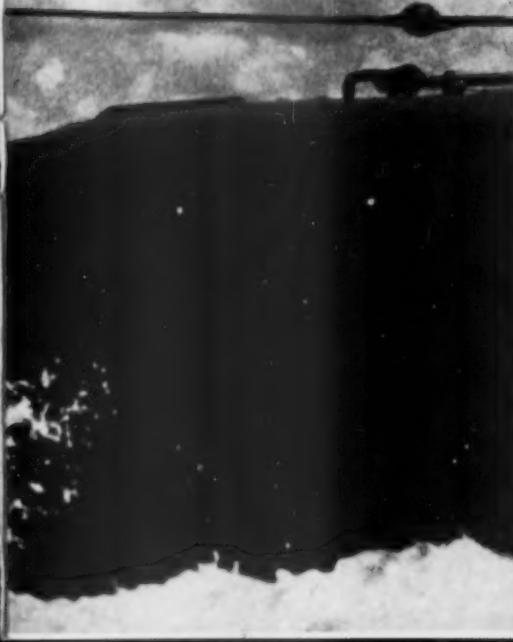


gressive modifications of the P2V have kept it militarily up to date at lowest cost to the Navy. Pound for pound, and dollar for dollar, the P2V *Neptune* is the most formidable patrol aircraft bearing the insignia of the U.S. Navy.

Recently the Navy awarded Lockheed its 24th contract for P2V *Neptunes*—a tribute to Lockheed's leadership in weapons system management, the development and application of electronics, and the design and production of long-range patrol aircraft.



These drawings illustrate the multiple-mission capabilities of the P2V *Neptune*:
1 Low-flying P2V's electronic gear spots submerged sub because its presence distorts the earth's magnetic field. 2 Depth-bombing a submerged sub, 3 torpedoing a surface ship or laying mines to disrupt enemy shipping are jobs the P2V can do equally well. 4 Spotting hurricanes and reporting their velocity and direction are routine but important P2V missions which save human lives and vast sums in property damage.



Lockheed Missile Research Laboratories to Be Built in Stanford's Industrial Park

A series of research laboratories will be constructed by Lockheed's Missile Systems Division on a 22-acre site adjacent to Stanford University, Palo Alto, California. On a nearby site of 275 acres, at Sunnyvale, Lockheed will build extensive new engineering, manufacturing and administration facilities. Lockheed's 3,000 scientists, engineers and technicians now developing guided missiles and unmanned aircraft at Van Nuys will transfer to Palo Alto and Sunnyvale as rapidly as construction permits.

The proximity of both new sites to Stanford will make the university's outstanding academic resources available to Lockheed research teams. And the new laboratory facilities to be built by Lockheed will provide Stanford scientists with technological tools and consulting opportunities hitherto unavailable.

ATTENTION, STUDENTS WHO DESIRE MASTER OF SCIENCE DEGREES: Lockheed's Advanced Study Program helps students achieve MS degrees in Mathematics, Electrical and Mechanical Engineering, Aeronautics and other physical sciences. Write: LOCKHEED MISSILE SYSTEMS DIVISION, Van Nuys, Calif. (Below: aerial photo of Stanford campus.)



LOOK TO LOCKHEED FOR JET LEADERSHIP, TOO

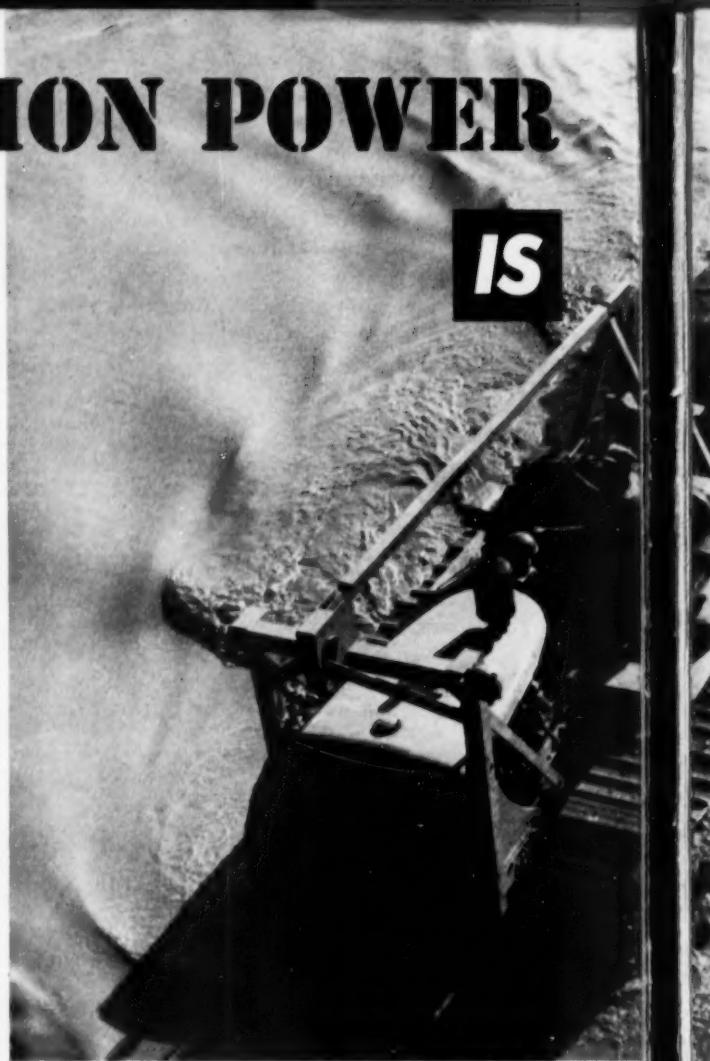
LOCKHEED
AIRCRAFT CORPORATION

California Division, Burbank, Calif.
Georgia Division, Marietta, Ga.
Missile Systems Division, Van Nuys, Calif.
Lockheed Air Terminal, Burbank, Calif.
Lockheed Aircraft Service, Burbank, Calif.

CONSTRUCTION POWER

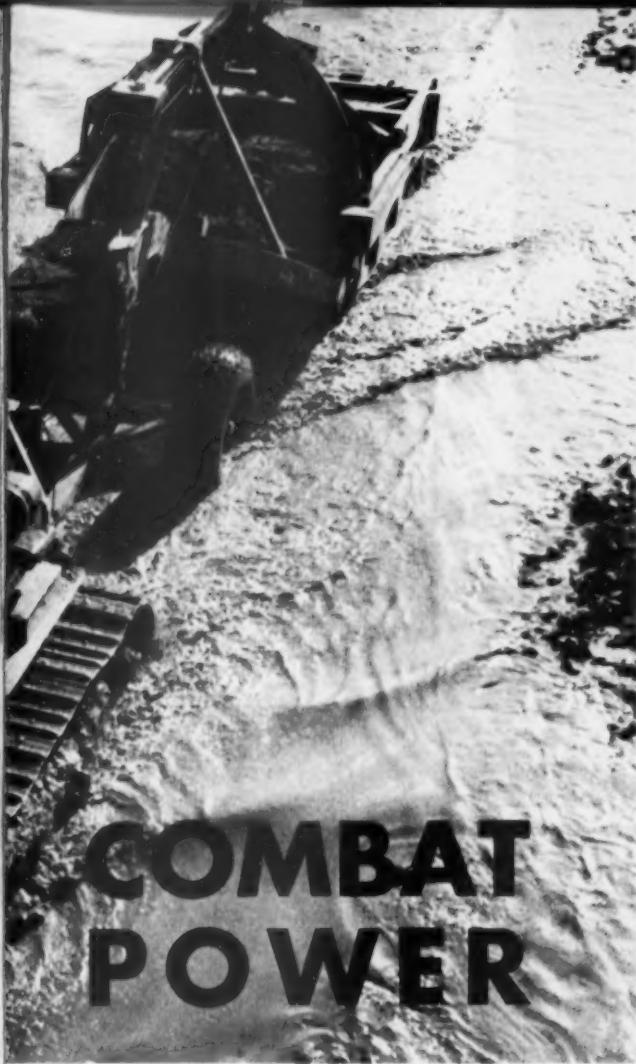
One of the largely unheralded instruments of victory in World War II was American construction power as typified by the bulldozer, the transit-mix concrete truck and other tools of our heavy construction industry in the hands of the Army's Corps of Engineers. These mobile machines built roads and bridges, airfields and ports, pipelines and supply bases all over the world. Example: Between D-day and VE-day Army engineers built 250 airfields in France at the rate of one every 36 hours.

In the next war, as General Sturgis makes clear in the following article, the demands on the Army's Corps of Engineers will be much heavier and more urgent. If this proud Corps is to be able to perform its mission, certain essential conditions must be clearly understood by the whole Army, and, as General Sturgis writes, certain unfortunate trends should be reversed. What he has to say is of prime interest to an Army moving rapidly into the Atomic Age.



Construction power means moving large quantities of mud, rock or snow. Above, an earth-moving machine carries fill dirt to a bridge approach in Korea. Below left, Army engineers cut a four-foot trench 18 feet deep through the Greenland icecap, and at right below, a new trench digging machine that can bore a foxhole in ten seconds





LIEUTENANT GENERAL S. D. STURGIS, JR.

A FEW of our journalistic prophets of doom and disaster are warning us that if Detroit continues to produce automobiles faster than the construction industry can pour concrete paving, the day will come when all automotive traffic in the nation will grind to a halt, paralyzed from coast to coast by highways bumper-to-bumper with cars.

This omen is no more fantastic than the grim possibility of a military stalemate in any future war if our military construction power fails to keep in balance with other elements of combat power.

To understand this there must be an appreciation of the role of the engineer in modern warfare. In part, World War I bogged down in the trenches of France because construction equipment that could lift World War I armies out of the mud had not been developed in 1917-18. French roads were tortuous channels of mud through which military columns crawled or stalled while engineer troops labored with hand tools to spread rock in almost futile attempts to keep essential traffic moving.

When World War II began, the American construction industry had come of age and Army engineers were able to build the roads and bridges, airfields and ports that our World War II forces demanded. We had construction power adequate to the requirements of the maximum combat power of our armed forces. True, our construction resources were never more than barely adequate, and occasionally were less than that. Throughout the Pacific area after mid-1943, the timing of our

New bridges developed by the Army engineers include portable "short gap" crossing devices that can be pushed across gaps up to 40 feet wide. Designed to be used under enemy fire, the bridge can be positioned and released by an operator in the tank





World War I. 1st Division engineers had the almost impossible task of keeping passable this muddy track to the Argonne battlefield



World War II. Army engineers performed herculean tasks under incredible conditions in opening up the Ledo and Burma Roads

amphibious assaults was determined very largely by the rate at which bases could be built at the scene of previous assaults. The security of our tenuous beachhead at Leyte hung in the balance for many weeks because we lacked the construction resources—troops and rock aggregates—necessary to build quickly the all-weather roads and airfields needed to support a breakout from the perimeter. Similarly, in Asia, the application of military pressure on the Japanese from the mainland, which would have been of immeasurable benefit to our combat operations in the Pacific, was severely restricted by the shortage of military supplies, particularly gasoline, which prevailed until the Ledo Road and its parallel pipeline were completed relatively late in the war.

THUS the construction power of our Army engineers was, more often than not, the limiting factor affecting combat operations on the ground and in the air. Consequently, it was necessary for our field commanders in World War II and later in Korea, where engineer resources always were in short supply, to make the most

efficient possible use of their scarce construction means. This conservation was effected in several ways.

First, at all command levels engineer requirements and capabilities were carefully integrated into operational and logistical plans. The most important single factor in making this possible was the universally accepted policy that gave the engineer of each Army command direct access to the commander and the principal members of the staff.

Second, the age-old principles of mass and economy of force were applied to the employment of engineers just as to other members of the Army combat team. Within the field army, for example, the army engineer commanded or otherwise exercised direct control over all engineer units not assigned to subordinate commands. By limiting the number of units assigned to subordinate commands to the minimum necessary for performance of normal missions, the army commander, through his engineer, was able to maintain direct control over a substantial portion of the construction power available to the army, and could shift that construction power almost as quickly as he could shift the fire pow-

Lieutenant General Samuel D. Sturgis, Jr., was commissioned in the Corps of Engineers in 1918 upon graduation from the Military Academy. He was an instructor there from 1922 to 1926, after which he participated in various strategical studies in the Philippines, while serving as adjutant and later CO of the 14th Engineers. While commanding the engineer troops at the Cavalry School he recognized the need for mechanical equipment to keep abreast of mechanized warfare, and obtained the first such equipment made available to engineer troops. This became the pilot test which resulted in the provision of the bulldozer, the diesel shovel, the air compressor, and other modern construction machinery for engineer troops in World War II. General Sturgis is a graduate of Leavenworth and the Army War College. Before the Second World War he served on several important civil-engineer projects. During it he was Chief Engineer of Sixth Army, and was in charge of all airbases, port and Army construction in twenty-two amphibious operations from Australia to Japan. After the war he served in G3, was Engineer of the Missouri River Division, commanded the 6th Armored and ComZ in EUCOM and USAREUR. He was appointed Chief of Engineers on 25 February 1953. A member of an old Army family, General Sturgis's grandfather was a Civil War commander, his father commanded the 37th Division in World War I, and an uncle, Lt. J. G. Sturgis, was killed in action with Custer.



Korea. Army engineers built this suspension system for carrying wounded across a deep ravine



er of his artillery in response to the shifting tides of battle.

Third, at each command echelon responsibility for the total engineer mission was vested in a single individual who also was given control over the resources available to accomplish that mission. To appreciate the importance of this concept it must be understood that the engineer in effect must fight a battle within the larger battle being fought by the command as a whole. While infantry, armor and artillery concentrate their attentions wholly on the enemy, the engineer member of the team must concentrate partly on the enemy but primarily on the natural obstacles of terrain and weather which must be overcome. This battle of the engineer against Nature, while an integral part of the total battle, frequently bears very little apparent relationship to it, either space-wise or time-wise. For example, the concentration of engineer effort on the preparation of stream-crossing sites for an uncommitted corps while almost all other resources of the field army are supporting an already committed corps, is a good illustration of the apparent divergence of effort which can exist at a given time. These characteristics of the engineer mission require centralized control over engineer operations at each command echelon to achieve flexibility and preservation of unity in the engineer organization and to give it the capability of performing independent operations. If during the Second World War or the Korean conflict, vital construction power had been fragmented by dividing responsibility for the several elements of the engineer mission, it is ques-

tionable whether the limited construction resources available to our army commanders would have proved adequate to the task of sustaining the mobility of our armed forces in battle.

LOOKING to the future, new problems loom on the horizon. Just as the imaginative reader can visualize the possibility of all traffic coming to a halt if a solution to our highway problem is not found, so the military engineer can visualize the possibility of military stalemate if the construction power of our armed forces is not kept in balance with the other elements of our combat power.

Paradox: Larger requirements but lowered effectiveness

At the present time, two complementary trends give cause for serious concern. On the one hand, trends in the development of weapons and other items of military equipment are increasing requirements for construction in support of combat operations. On the other hand, certain trends in the formulation of organizational doctrine will, if continued, decrease the effectiveness of engineer operations in the field. This seeming paradox deserves most careful consideration.

The fact that mass destruction weapons are available to our potential enemies means that we must be able to avoid large concentrations of men and matériel that would offer lucrative targets. For the Army, this requires that we be able to operate with relatively small

(Continued on Page 50)



Missile Master's entry and tracking console

The Army's Signal Corps has come up with an antiaircraft artillery control and coordinating system that gives full and timely information to the men at the trigger: the commanders of Nike batteries

The article that follows, prepared with the help of the Signal Corps at the request of the editors, is understandably a non-technical description of the Missile Master system. It is our understanding that Missile Master holds promise of out-performing all other contemporary systems in the fast and effective engagement of aerial targets. As the article points out, a virtue of the system is the intimacy maintained between the system's "brain" and the commanders of firing batteries. Its emphasis on decentralized control gives it speed and versatility.

THE kill potentialities of the Army's Nike guided missile, which exceeded the fondest hopes of its designers, will be vastly increased by the Missile Master—an electronic system for controlling and coordinating the fire of Nike antiaircraft batteries and other advanced Army weapons.

When the Missile Master system (AN/FSG-1) becomes fully operational the capability of the Army Antiaircraft Command will be measurably increased and the odds favoring the success of an aerial attack against this nation will be markedly decreased.

Detailed tests of a forerunner of the Missile Master system at an Army Signal Corps Engineering Laboratories station at Fort Meade, Maryland, during the past two years, have proved its

**AIR
DEFENSE
by
MISSILE
MASTER**

effectiveness in coordinating the fire of Army weapons against aerial targets. While it is an integrated system that ties together all elements of AA defense from target detection to destruction, Missile Master is also based on a decentralized, cooperative concept that relies upon the rapid transmission of all essential information to Nike firing batteries. The concept recognizes that an effective system must provide full and timely information to the men who have the responsibility for shooting down enemy aircraft with point defense ground weapons—the commanders of Nike batteries.

Missile Master is complete in itself and does not depend upon the SAGE system (described in this magazine in the March issue) or any other system for information. While it can and will be tied into such early-warning systems as SAGE, Missile Master has its own radars and other equipment for independent operations. Electronically it is exceedingly advanced and has refinements that give it a capability for spotting individual enemy aircraft.

EACH Missile Master system consists primarily of an automatic data com-

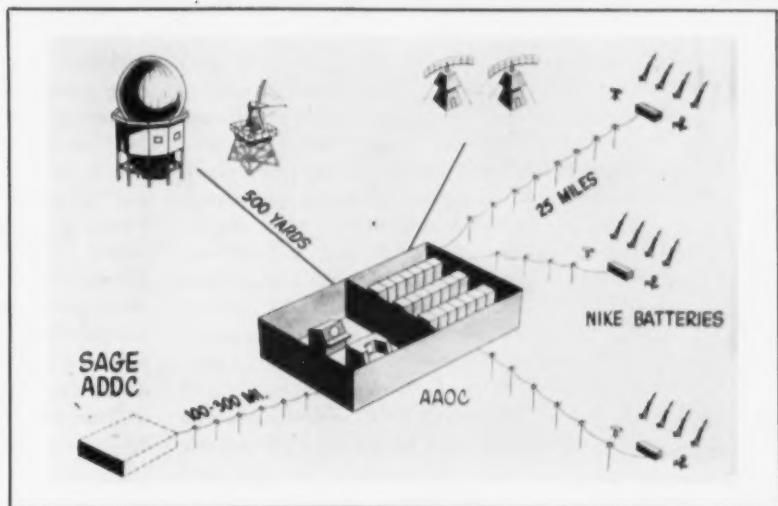
This schematic drawing of the major elements of the Missile Master system shows that the AAOC is the heart of the Missile Master system. Its effectiveness lies in its ability to get full information to and from Nike battery commanders fast.

munications network and automatic data processing and display equipment. The information obtained by the system is quickly and precisely evaluated at the antiaircraft operations center (AAOC) and instantly passed on to firing batteries. Decisions of battery commanders as to weapons assignment and target engagement are fed back into the system for the information of all other batteries and the AAOC.

Thus Missile Master furnishes the battery commander with the essential information he must have: (1) the current air-target situation, and (2) which targets are being engaged by other Nike batteries in the defense area. It furnishes the AAOC with information about the decisions and activities of each battery commander in the system.

The heart of Missile Master is housed in the two-story 100-by-130-foot building from which the AAOC operates. Surveillance and height-finding radars on towers are installed nearby.

Tracking operators in the AAOC constantly monitor information picked up by its own radars or received from early-warning systems tied into it. When targets appear on the display consoles monitored by operators, the



operators establish "tracks" on them and determine their identity, position, velocity data and size (number of aircraft) and, when necessary, the priority of the target. The data are stored electronically and distributed to all elements of the operation, including firing batteries.

Tactical controllers in the AAOC evaluate the progress of an engagement and assign specific targets to batteries when necessary. They intervene on battery commanders only to insure the quick engagement of targets or to eliminate any duplication of fire by batteries. To help the battery commander in his selection of targets, markers are superimposed on the picture displayed by his acquisition radar. This makes instantly available to him all the in-

formation he needs including targets being engaged by other batteries.

Perhaps the principal virtue of the Missile Master system is its close integration of the AAOC and the firing batteries. The rapid interchange of information among them insures the fast, positive engagement of all identified targets without duplication of effort and with small chance that any specific enemy aircraft might slip through without being taken under fire.

DEVELOPMENT of the Missile Master system began more than ten years ago; in 1950 a prototype system was designed and installed at the Signal Corps Engineering Laboratories station at Fort Meade. The principal contractor in the development of the system was the Glenn L. Martin Company of Baltimore. Other contractors included the Airborne Instruments Laboratory and the American Machine & Foundry Company. As the system, now in production, becomes available they will be located at critical antiaircraft installations in the United States. The advanced nature of the Missile Master system is indicated by the fact that it calls for the largest amount of electronics equipment ever ordered at one time by the Signal Corps.

The reliability and flexibility of the Missile Master system, as proven through thorough testing, assures the Army that its Nike installations will prove to be even more effective as a deterrent to an enemy aerial invasion.



By all the theories of the most advanced students of men's minds and motivations, Lloyd C. Pate, instead of resisting his Communist captors for two years, seven months and nineteen days, and organizing an unofficial group called "Pate's Reactionaries," could well have been a turncoat. A product of a broken home, battered and buffeted from place to place from early childhood, at thirteen he was a bartender of bootleg whiskey in a combination roadhouse callhouse.

He completed nine grades of sporadic schooling and then in December 1949, a month before his sixteenth birthday, he told a recruiting officer he was seventeen, and enlisted in the Army. He went to Japan an MP, but after 25 June 1950 "goofed up" so as to be transferred to the infantry (because he wanted to make up for a favorite uncle who "had been turned out of the infantry with a dishonorable

*discharge") and went to Korea. There he was assigned to King Company, 19th Infantry (24th Division) and became an ammo bearer for a 57mm recoilless rifle. On 1 January 1951 he was captured by the Chinese Communists. He says he became a "reactionary" because he was "stubborn" and "didn't like a guy to stand over me and preach things I knew were a pack of lies." Last summer while in New York as a witness in the trial of Sergeant James C. Gallagher, he told the story of his life and his ordeal as a POW to a newspaperman, B. J. Cutler. The story in his own words was published in the New York Herald Tribune and later expanded into the book *Reactionary!* from which the following article was drawn. The book reveals a tough-minded, resilient man utterly foreign to any degree of softness and dependence upon others. A man without much pity for*

Survival Lies in Training

SERGEANT FIRST CLASS LLOYD C. PATE

WHEN I took my basic training early in 1950, most people thought the next war was going to be fought with pushbuttons, and public opinion was against rugged training for recruits. The bayonet was regarded as an obsolete weapon and not once during my fourteen weeks of basic did I so much as see one.

Just eight months later I was under fire in an old fashioned war in Korea. You can imagine my surprise when our first action turned out to be hand-to-hand fighting and the first North Korean I saw jumped up and was fixing to run me through with his obsolete bayonet.

I didn't even know what to do with my bayonet. All I could do was step back and shoot him with my M1 rifle. This was a very bad tactic to use in hand-to-hand fighting because my rifle bullet went clear through the Gook. If there had been any GI's behind him, that bullet could have killed them.

It was thinking back over this incident and others like it that made me decide to stay in the Army after I came back to this country. I figured I had learned some things the hard way in combat and in prison camps that could save American lives in the next war and I re-enlisted to teach them to young soldiers.

In the beginning, when I began to leave the hospital at Fort Jackson and went around to talk to GI's in training on the post, I came close to getting fed up with the Army. The recruits seemed to resent the Army for pulling them into service and taking them from their civilian jobs. They thought training was a laugh and told me how they had got their noncoms and officers chewed out by writing home to their mothers, or to the Inspector General, or by crying on the chaplain's shoulder.

It's not the place of a sergeant to lecture the Army on how to do things or to tell the American people how to run their Army, but I wouldn't be honest if I didn't take this chance to tell an important thing I learned: The Army is very capable of taking care of its men and teaching them how to survive in combat. This calls for rugged training and the public should not try to stop the Army from getting men ready in the ways it knows are best.

ALL never forget one case of civilian interference. It was back in 1950 and things were pretty rugged in Korea. A brewing company back in the States told the Army it wanted to send some free beer to the men in Korea. And don't think we wouldn't have liked to come off the front lines and sit down

for a few minutes to enjoy a beer.

The Army thought the idea was okay, but a bunch of women got their heads together and had their clubs and organizations jump all over the Army. "Don't send our boys beer," they said. "Send them fruit juices instead." And the Army did.

I hope some of these women read this. Because I feel they would be glad to know that we used their cans of fruit juice for target practice. This is just one example of the way that people who don't know a thing about it stick their noses into the business of the Army.

It happens in other ways. Say a man comes into the Army and he doesn't like it. He thinks it's too rough for him and he sits down and writes his mother a long sob story. She takes the letter to her preacher or women's clubs and they write to a Congressman. Then the politician writes to the commander of this boy's post. The letter gets passed right down the line until finally some noncom or junior officer gets reprimanded for trying to make this boy learn something that may save his life later on.

What happens when this man gets into combat? He can't sit down and write a letter saying, "Mom, they're shooting at me." The mother can't

weakness, but not vindictive when confronted by it. When by accident he met Sergeant Gallagher at Governors Island before the court-martial began, he spoke to him as one soldier to another:

"I said, 'Hi, Gallagher, how you doing?'

"'Okay, Pate,' he said. 'How about you?'

"'Aw, so-so,' I said and walked away. There didn't seem to be any point in saying anything else. He knew why I was there and I knew what I had to do and that was it."

He has the same direct let's-not-beat-around-the-bush attitude toward the training of Americans for war. That is his job today at Fort Jackson, S. C., where he is an instructor in an advanced leaders' school. In the article that follows, Sergeant Pate's plain-spoken arguments that training cannot be soft are brutally effective.



write the Congressman and he won't write the enemy and say, "Stop shooting at that boy. He's a clean-cut American boy and he doesn't like to be shot at."

When this man gets into combat he's going to wonder why he wasn't taught in basic what he should know, why they didn't show him what to expect and what to do. And when the mother gets a missing-in-action telegram and the politician looks over the casualty lists, everybody is going to stop and wonder why.

FROM the end of 1953 to July of 1955, I was an instructor at Camp Gordon, Georgia. I taught technique of fire, squad tactics, scouting and patrolling—all important subjects. They not only can save a man's life, but a whole squad. We couldn't make the problems very realistic because the men were always writing home and telling how close they came to being killed. They were exaggerating the point, trying to sound big to the folks back home, but the folks back home were putting pressure on the Army.

Nobody in the Army today believes in abusing or maiming young soldiers. But sometimes they are mule-headed and you can't even use profanity in front of them without getting busted. There are some soldiers who will not do what you tell them no matter how many times you say it. I have seen one boot in the behind turn these men into the best damn soldiers you ever saw. The Army and they are better off for it, but it's against the law.

IT is no longer enough to teach a young soldier how to fight in combat. He should also know how to survive and how to behave in a prison camp if he ever gets captured. The Army learned a lot from the Korean War and our men are now getting better training in everything from bayonet fighting to how to resist Communist brainwashing.

There is the matter of food. A lot of soldiers, especially young recruits, gripe about Army chow. They say they don't like it and they sneak off to the PX to stuff themselves with hot dogs and soft drinks. This is a bad habit to let them get into because I know men who were trained that way who didn't come back from Korea because of it. A man should learn to eat what he gets.

The food in the Chinese prison camps was sorry. It was much worse than the slop a farmer feeds his hogs. But it would keep you alive if you ate it. You may have had to hold your nose but you could eat it. A lot of men wouldn't try. They said "I can't" because they didn't like the taste of the Chinese slop. And a lot of those men are still over there.

Another thing we can do in training is to discourage soldiers from running to their sergeants or lieutenants with tales about other men. Some non-coms will listen when a soldier tattles about another man and will thank him, but it is the worst mistake we can make with young soldiers. The habits they get into in training are the habits they take into combat and captivity. And the man who carried tales in the States

was the same man who ratted to the Chinks in prison camps. We can stop them from learning that kind of thing here.

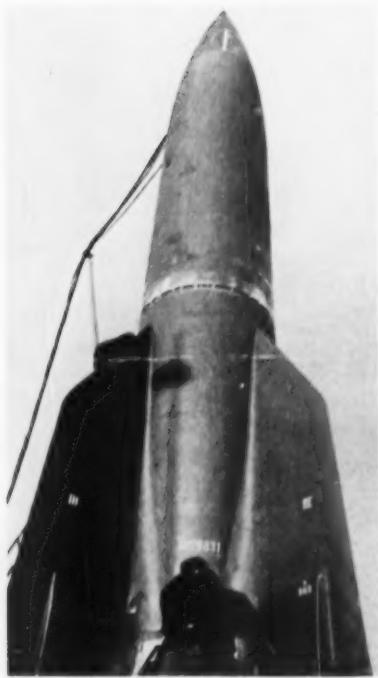
A NY soldier captured by a Communist army can expect to undergo a period of brainwashing, which is just a new word for an old trick—to get a man to turn traitor against his country. When a soldier knows what to expect, he has a better chance of resisting the Communists. The Army must teach men the tricks the Chinese used in Korea because other Communist armies, if they get the chance, will probably use the same system.

The first thing the Communists do is put the men through a starvation period. As a general rule it lasts six months. They will admit that the food is bad and the medical care is worse. But they will blame it on the Americans and say they are bombing medical convoys and supply trains.

Their purpose during the starvation period is to kill off the weak and wounded soldiers. It isn't true that the Communists want to convert the weakest men. They want only the men with the strongest will to live to be left because they think they can make better Communists out of them.

All through these first six months they give short lectures on Communism, nothing very heavy. They start by telling about the bad points of the American government. Then they go into the good points of Communism. The whole idea is to get the men to

(Continued on Page 48)



This close-up of a V-2 in its launching platform was one of the first photographs of German missiles to fall in Allied hands. It was found on a German prisoner-of-war in March 1945

Chaotic Command

Hitler's off-again-on-again enthusiasms, the high command's inability to come to grips with the problem of field command and the opportunism of an SS officer made a fantastic muddle of German control of its V-weapons

LIEUTENANT COLONEL MELVIN C. HELFERS



Captured German photograph of a V-1 being placed in its launcher

ARMY

CURRENT interest in guided missiles raises new interest in German experience with its V-weapons in World War II, a subject which has provoked a good deal of discussion and argument since the first combat V-1 was launched on the morning of 13 June 1944. It is interesting to note that, while many high-ranking German officers deny that the V-1 or V-2 could have altered the outcome of the war, even if their development and employment had been other than what it was, no less a person on the Allied side than General Eisenhower has written, "It seemed likely that, if the German had succeeded in perfecting and using these new weapons six months earlier than he did, our invasion of Europe would have proved exceedingly difficult, perhaps impossible."

While this will always remain conjectural, it is instructive for us today to examine what the Germans actually accomplished with V-weapons and how they did it.

The Germans launched 20,880 V-1's, of which 2,445 crashed shortly after launching, and 3,255 V-2's, of which at least 169 were failures. London was the target for 8,839 V-1's and 1,359 V-2's, Antwerp for 8,696 V-1's (of which 2,183 were shot down by American and British antiaircraft, using 90mm guns and radar) and 1,610 V-2's, and Liège for 3,141 V-1's and 86 V-2's. The remainder of the weapons were aimed at Brussels, Paris, Southampton, and other targets on the Continent and in southeastern England.

The V-weapons killed an estimated 2,197 military persons and 9,768 civilians, and seriously wounded at least 1,939 military and 24,494 civilians. Damage to military installations was slight, some of it in Antwerp and Liège. Destroyed were 23,000 houses in London, 6,400 in the Antwerp area, and 4,300 in the Liège area. Roughly

100,000 houses were damaged in London, 60,000 in Antwerp, and 44,000 in Liège.

The military effort put out by the Allies against V-weapons was very much out of proportion to the actual damage caused by the weapons. The entire French coast was three times subjected to intensive aerial photography in search of secret-weapons clues. From the beginning of December 1943 until 6 June 1944 the U. S. and British air forces dropped 36,200 tons of bombs in 25,150 bombing sorties against the so-called "Rocket Gun Coast." In July and August 1944, one-fourth of all Allied combat sorties and one-fifth of all bombing tonnage were used to counter the V-weapons. In the Antwerp area alone, from October 1944 to April 1945, over 22,000 officers and men were employed on the anti-V-weapon campaign.

THE effect which V-weapons had on Allied operations is difficult to measure. All Allied commanders recognized certain military problems created by the weapons. In the drive toward Antwerp, the possibility of eliminating the launching sites in the Pas-de-Calais area was an important side objective. In *The Supreme Command*, a volume in the U. S. Army's official history of World War II, the author, Dr. Forrest C. Pogue, supports the belief that the location of the V-1 launching sites in the Pas-de-Calais area influenced the decision in August 1944 to launch the main effort against Germany in the north under then Field Marshal Montgomery. The German V-weapon campaign had a noticeable effect on Allied planning, operations, and troop dispositions, but only within the framework of other happenings and never as a single item.

The propaganda effect on the German people of having such weapons as the V-1 and V-2, and the promise of a whole Pandora's box full of others

yet to come, was considerable. It was one of the main psychological elements that caused the Germans to keep on fighting even after the situation had become hopeless militarily. German War Production Minister Albert Speer, after returning from a four-day inspection trip in western Germany, reported that "a belief that new, decisive weapons will soon be employed is generally prevalent among the troops. . . . Even high-ranking officers seriously share this belief." British Wing Commander Asher Lee has written in *The German Air Force* that "the flying bomb was a great source of propaganda revival for Dr. Goebbels." The same can be said of the V-2 rocket and the threat of a whole list of other German V-weapons.

THE origin of the German V-1 is somewhat shrouded in uncertainty, but it was proposed to the technical service of the German Air Force ministry in July 1941. It was readily accepted by the Luftwaffe, primarily because it would furnish that arm with a cheap offensive weapon and also give it a missile of its own to counter the Army's development of the V-2 rocket. Its capabilities were described at that time as those of a pulse-jet propelled pilotless apparatus, capable of being directed in flight on two set courses by compass, of flying 155 miles at a speed of from 341 to 372 miles an hour, and of carrying 1,650 pounds of explosives with an accuracy of 50 per cent on a target 3.72 square miles.

By July 1943 the weapon had been developed to the point of flying 152 miles and impacting within half a mile of its target. The results were sufficient to encourage the Air General Staff to order its urgent continued development, and all preparations were placed under the chief of antiaircraft artillery, a Luftwaffe officer in the German setup. Mid-December 1943 was provisionally fixed as the date for the start of flying-bomb operations against England.

The history of research and development in rockets by the German Army goes back to 1930. Its first official act in the development of the V-2 was a conference of officers of the Army Ordnance Office, held on 17 December 1930. The conferees agreed to push the development of rockets, to equip the artillery testing range at Kummersdorf, south of Berlin, for rocket development and trials, and to place

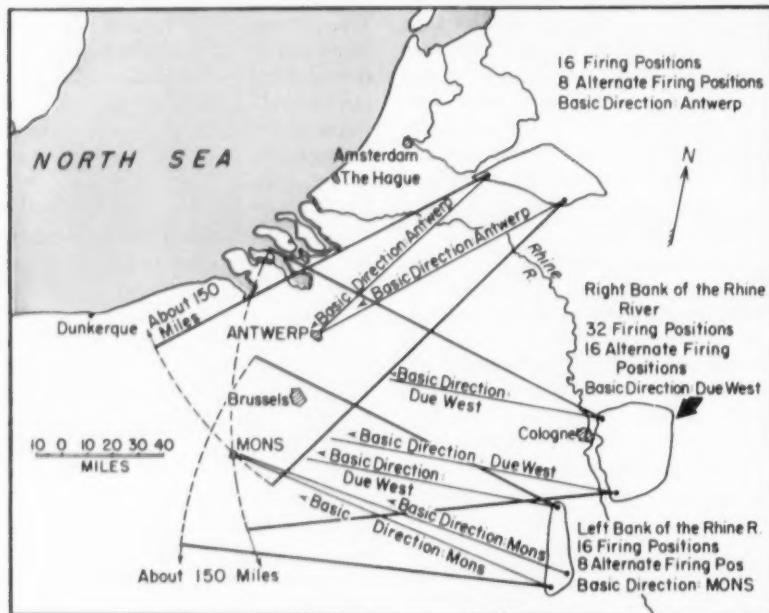
Lieutenant Colonel Melvin C. Helfers, Retired, is a graduate of Concordia College, Fort Wayne, Indiana, and of The Citadel. He was commissioned in the Regular Army in July 1938 under the provisions of the Thomason Act. During World War II he was Special Intelligence Officer to General Patton, and was retired for physical disability in 1946. He was returned to active duty and served as Chief of the Foreign Studies Branch, Office of Military History, from 1951 to 1954. It was in this assignment that he gathered much of the information that appears in this article. He earned an M.A. degree at Duke University in 1949. He is on the Faculty of New Mexico Military Institute at Roswell—in the shadow of Dr. Goddard's and America's first rocket-launching tower.

a technically qualified officer in charge of the project. Fifty thousand dollars was set aside from Ordnance funds for the first year's developments.

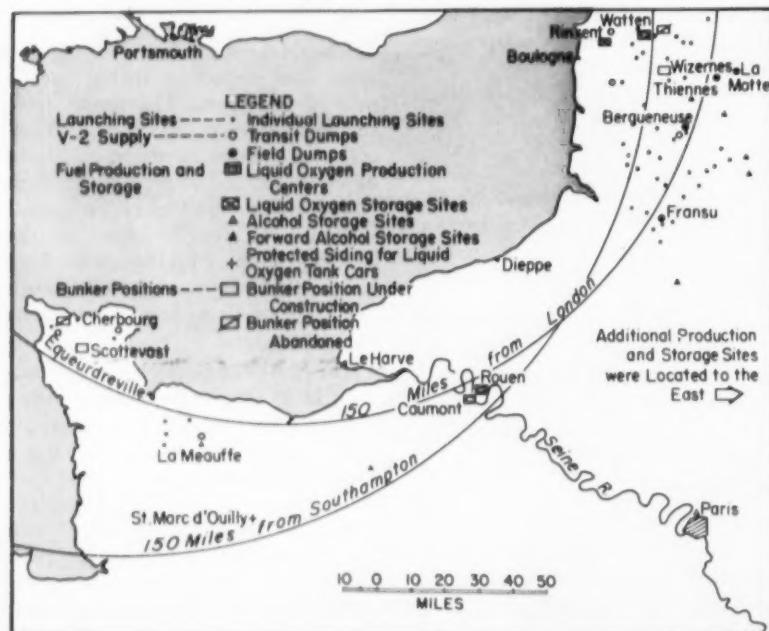
THE first year of the Army's support saw sufficient progress for the chief of the Army Ordnance Office to approve the allotment of a second \$50,000 for the project. By 1 August 1932 the organizational setup for research

and development was definitely formed. Research Station West, under Captain Walter Dornberger, assisted by three pioneer engineers and scientists, among them Dr. Werner von Braun, existed at Kummersdorff. A powder rocket had been developed, and the feasibility of liquid rocket propulsion had been sufficiently proved, at least to Captain Dornberger, to justify further experimentation.

V-1 operational areas in Mid-October 1944



German plans for V-2 sites in Northern France



By December 1934 two liquid-propulsion rockets were successfully launched on the island of Borkum in the North Sea. The launchings were witnessed by the Commander in Chief of the German Army, General Werner von Fritsch, who passed on his faith in the project to his successor, Field Marshal Von Brauchitsch. In February 1936 Captain Dornberger claimed that he could develop a long-range rocket which would accurately carry one ton of explosives 150 miles.

Captain Dornberger's claim, coupled with salesmanship, led to the establishment in 1937 of a joint Army-Air Force research station at Peenemünde on the Baltic coast at a cost of \$75 million. At Peenemünde the research effort was divided into two sections: Peenemünde West for the Luftwaffe, and Peenemünde East for the Army. At first Army and Air Force cooperation was close and mutually beneficial, but in time the Army alone carried on with liquid-propulsion rockets, while the Air Force developed other projects.

Until May 1943 the development of the V-2 alternately rose and fell, partly according to the whims of Hitler. By the fall of 1941, Dornberger and his group were fully convinced that the missile was practical. But money for its continued development was running out, and its low priority led to the channelling of the needed raw materials to projects of higher priority. Dornberger's persistence and Brauchitsch's support managed to raise the project first to a position of priority and, after a personal meeting between Hitler and Dornberger in May 1943, to a position of highest priority. The first full-sized V-2 rocket was launched at Peenemünde on 6 June 1942. Four months later, the fourth V-2 to be fired reached its target area 167 miles away.

PLANNING and preparations for the field commitment of V-weapons was at first carried on separately by the Air Force for the V-1 and by the Army for the V-2. In the spring of 1943 the 155th Flak Regiment was organized near Peenemünde for the training of troops to fire the V-1. Officer and enlisted specialists were meanwhile being trained at Peenemünde, and plans for the construction of launching sites in northern France

(Continued on Page 62)



Get off the treadmill, Captain

It's Not Your Outfit

CAPTAIN CHARLES P. SKINNER

failure he must remain responsible, is an executive who will win wars.

Executive ability can be developed into truly brilliant leadership, but the way upward depends on mental attitudes, particularly a leader's attitude toward his outfit. Your desire that it should shine is natural and is one of the reasons you were selected to command it. If it's a company you have now, you learned a lot about commanding it while commanding a platoon. You learned how to give orders, how to inspect, and to insist that a job be done according to plan. You have the prerequisites for higher command at the next level.

You are quite conscious that your superiors will be observing your ability to delegate and that their conclusions will be important to your entire future. You are certainly not going to make the mistake one of your own previous COs did, throttling your initiative and that of your fellow officers. Every time you get a little out of line that way, you're going to remember the bull sessions you fellows had on that very issue, aren't you?

The time comes when your new hat of company command begins to fit your head. Property inventories are finished; you've found some pretty bad things that need correction, and you've got a program lined up; you've gained a fair idea of the capabilities of your lieutenants and have formed some plans for rotating a few assignments. Then you get your first big gig. First-echelon maintenance of motor vehicles in your outfit is rotten, you are told. Second-echelon, by your motor pool, is not much better.

WHO says so? The battalion commander, that's who, and he has the latest Ordnance technical reports to prove it. The inspection was made before you joined the outfit, and you know there are other and more pressing problems that need attention. First things first. But you know what the battalion commander is interested in right now.

Remember, he actually believes he knows something about your company. Doesn't he have staff officers to make

command inspections for him? A hard-working exec who sniffs out troubles before they get started, most of the time? And he gets around a bit himself, you know. Hard man to hide anything from.

If he just had any real idea of the state of the messhall . . . that was the first thing you meant to improve. Just before you leave, he calls you back.

"You know, Captain, we're aware that you have some problems up there. Don't start worrying now. Frankly, some things were going on that we didn't like too well. We know you've got a lot to do, and we're relying on you to do it, but don't try to do it all in one day." Then the steely look leaves his eyes, and he seems almost benign.

"One thing, though," he continues. "You certainly inherited a good mess. They've had the plaque for the best mess in the battalion for six straight months." There's nothing to say to that except to mumble how much you appreciate his saying so—even if you are suddenly curious about how bad the others must be, if yours is the best!

As you leave, the exec gives you a quizzical, calculating look. "Remember, you can't do all of it by yourself," he reminds you. You reassure him that you won't try to.

That afternoon, you do your first chewing in the outfit since you got there, not very long ago. You explain some fundamentals to the motors officer, and discuss the tech inspection with him. For good measure, you chew over the mess officer. He tells you that he very seldom goes to the messhall, but only because your predecessor told him to stay far away from it, and he's glad you feel differently and he's going over there right now, sir. It makes you feel good to see him go out rubbing his hands, his eyes shining with the light of battle. A few sergeants hear from you also, and you get set for a long hard pull, full of fight and more eager than ever.

SUDDENLY, it gets to be a couple of weeks later, and where did all that time go? A requirement came in

YOU'RE an eager type who wants a superior outfit, the best in the command. "Good, Better, Best" is your motto. But you're also an executive type and you know that many of the same principles apply to military command as to any other managerial job whether traffic manager or board chairman. You know that most important principle: the boss should not try to do all the work himself.

Don't relax just because you have never had a superior officer accuse you of not knowing how to delegate. While we can hope that you will miss this experience altogether, you will hardly avoid some self-indictments of the charge during your occasional periods of personal soul-searching.

Ernie Pyle said so much in those often-quoted words of his about the soldier in battle having no knowledge of affairs transpiring farther away than fifty yards to his right or left. That soldier, however, is not responsible for such relatively distant affairs. His commanders are responsible and must be able to control things which happen far away and in many places at once. The commander who can delegate effectively to other men the tasks which comprise the sum of his responsibility, and for whose individual success or

Capt. Charles P. Skinner, Signal Corps-USAR, is on the ROTC faculty at Northeastern University, Boston, Mass. Interrupting his pre-medical course in 1940 to enter the Army, he was commissioned through OCS and served as a radar officer in New Guinea and Leyte. He left the Service in 1945 and was recalled for the Korean Conflict.

for a new and fancy logistical report, one of the kind that wants to know how much transport you need to move your entire company with all its property for extensive combat operations; how much just to go out and operate for five days only; how much for two days; how many and what kind of cargo-type aircraft for airborne movement. It seemed that none of the lieutenants was familiar with this type of report, a real dilly, which had to be in the adjutant's office by 1000 hours next day, so you and the company clerk sat up most of the night whipping it into acceptable shape.

Other paper-mill crises came along and interfered with your program, particularly with your inspections, which just didn't seem to get made. Court martial charges against a man picked up by the MPs. Those had to go in fast and had to be right the first time, so you couldn't let a lieutenant practice on them. Among the many things that came up was a cook over the hill, in an outfit with a pretty good AWOL record before your time, according to the smug little battalion personnel officer; a new mess inspection report, so far below the last one as to make that Best Mess Plaque look mighty insecure; and another report showing only very slight improvement in that hot-spot motor pool.

Man, you'd better get busy. Getting a little deeper into the mess situation shows that your Sad Sack of a mess officer has only got the cooks stirred up; two of the better ones want transfers. Supply has been absolutely ignoring the mess sergeant's requirements for new bakespans, and the scars on the old ones cost him an extra, unnecessary gig on that inspection. This simply demands your personal attention.

A look at the motor pool shows that they are doing the battalion motors officer's work instead of yours, and the idea of vehicle records jackets and monthlies is not even rudimentary, in spite of a remedial program that your motors officer was *supposed* to be running. They're obviously not coming out of this slump until they can benefit from your personal guidance.

Suddenly you are the busiest, most overworked man in the battalion. Was ever a company commander cursed with such a shiftless, careless, gold-bricking bunch of subordinates? When you feel this way, my friend, you are on the skids for fair.

In two months' time you may lift your inspection ratings a little, prob-

ably not much, but you will have quarreled with a few if not all of those numskull staff officers down at battalion, your first sergeant will have ceased speaking to you, and the company clerk will have lost what little ability he once had to spell and to turn out a paper without one erasure per line. And your lieutenants will not know any more about their jobs than when you first got there.

The worst of it is, you realize that you're on a treadmill, but you can't seem to get off. The outfit is in such

like a dog walking on his hind legs. It's not done well; the remarkable lies in its being done at all.

Your real trouble was that you were in too much of a hurry to have the best outfit in the battalion. You've got to realize that your outfit is not yours at all! This notion is really repugnant, and you turn it aside with an angry finality. Certainly it's yours; who else could it be? Whose is it whenever anything goes wrong? It's almost as personal a thing to you as a member of your family.

This outfit of yours has become so personal with you that you can't bear to trust anyone else with it. You've actually become a dog in the manger. The too little time you've taken with the lieutenants has only confused them. They know you're dissatisfied with them, but they can't seem to find out just what they've done wrong, and the worst of that is that you don't know either. They can't know by instinct, and while it doesn't have to be spelled out for them, they should have opportunities to talk with you at length instead of being turned away briskly and told that you'll see them later when you'll have more time. In two months you haven't had time, and they realize something that you do not: you're never going to have time for them. You'll have time only for your private projects for your personally owned company. They're all serving in *your* outfit. None of them even refers to "my outfit." They say "Captain Blank's outfit."

YOU, friend, are not going to make a success of your first company command until you learn that the unit belongs to everyone in it. Some of them care about it and want more responsibility for it. Some don't. Find the ones who do care and put them in the jobs that count. Put the uncaring ones in positions of least responsibility, dealing with them as soon as time permits. But first, give up this possessiveness which is destroying you and your outfit. Get your mental outlook straightened out so you *can* delegate, and thereby command. Give the outfit back to the lieutenants.

Write down your program all over again: your schedule of inspections; the checklists you intend to follow in these inspections; times for conferences with individuals; times for group meetings and list of the proper conferees.

Call in your motors officer and tell him that his turn is over, that his rec-



You're on a treadmill, with the cares of your company, as heavy as the world itself, on your back

bad shape that you've got to do a few more things before you can take time to concentrate on how to extricate yourself. One hopeless day, you find yourself on orders as a pre-trial investigating officer, something they could have given to fifteen other officers with time on their hands.

Certainly your own subordinates have much more time for such work than you have. So you really blow, now. Well, whose fault is it that you're all shaken up? Yours, of course; you didn't delegate enough. What a stab! If you'd delegated, nothing—positively, absolutely nothing—would have been done around here.

THE fact is that all you've done is to prove that one man can exclusively control a company, which was already known. As yet, you don't even know that one man can all by himself control a company when he's flat on his back with dengue fever, malaria, and salmonella dysentery. (I saw and marvelled at it from a distance.) But that's just like what Dr. Samuel Johnson said about the lady preacher, that she was

ord there hasn't been too impressive, but that you hope he'll do better with the unit mess. Tell him very firmly that you want that Best Mess Plaque back over the serving counter in two months.

The old mess officer gets the motor pool. Tell him to haunt the battalion motor pool and learn the business, to get friendly with the ordnance maintenance company if he can do it without stepping on battalion's toes. And have him visit the neighboring company whose trucks always look so good on the road and whose deadline rate is the lowest in the battalion. Be sure to tell him that you know he's taking over a tough job, but that you appreciate it and that he should feel free to come to you for help whenever he needs it.

Supply—now that's different, of course. That's money. Your feeling about that is that if you work about four more nights, you can turn over a perfect set of records to your supply officer and tell him to see that it stays that way. But wait; if you're going to work nights, why shouldn't he? And the sergeant—well, leave the sergeant out of it the first night, anyway.

You give the lieutenant the bad news about working nights, and he takes it more manfully than you had expected. That night you and he make good progress. The supply sergeant drifts in, and he and the lieutenant listen respectfully to your views on Army supply. About 2100 hours, the lieutenant asks with a slight flush: "Captain, you don't really feel you have to say here with us to make sure the job gets done, do you? I mean, I think we have a pretty fair idea now of what needs to be done. You give us a little time, and I think we can do it all right."

A little surprised at such a notion, you ponder this, with your new mental attitude. Sure, he can get the job done. If you can, he can. Only you don't like to take it easy when your subordinates are working hard. You're just about to say No, you can't let them work this way unless you're right with them, when you realize—you're being guilty of mock heroism. This is a temporary extra workload. It's their job, and they know it, just as they know you'll do your job.

So you make a final little speech to the effect that you are vitally concerned with supply, that you want to know the status of the property at all

times, and that they should refer any doubtful matters to you. If they want you any more tonight, you'll be over in the orderly room.

But the lieutenant isn't through with you yet. He's gotten bold. "You know where you should be, sir? You should be down at the Officers' Club. Why don't you take it easy for a change? You've got it coming." His smile seems sincere. Maybe he'd really like for you to have a little recreation and you ought to get busy making friends and influencing people on the battalion staff. "Thanks," you say. "You're right. I think I will do just that."

YOU'RE on your way, but watch yourself now! You may develop a tendency to overdelegate, to go to the opposite extreme. This can make you a Bottleneck. Because absolutely nothing can get past you. Every task you assign must be done over, because it doesn't meet your specifications. But you don't give any specifications! You recognize the task as it comes up. You know who should do it, and you farm



You never have time for your lieutenants, turning them away with a growl when they try to find out what you want them to do

it out. When the man who did it offers it for your inspection, he finds that he didn't know what you wanted when he began. Next time, when he's wise enough to ask you for more information, you wave him airily away. "Don't bother me with petty details. It's your job." He won't do it any better than before. You've ensured that. The still small voice of introspection may tell you, if you listen, that you're a jealous man. You are building up your ego by turning down a subordinate's work, because if you face it, you are not sure you would have done as

well as he did. That calls for some mental face-lifting in a hurry, and no one can cure you but yourself.

If you detect flaws in a finished job that could have been avoided by your having briefed your man better, unless your honest judgment tells you it can't be approved in its present form, accept it. No harm exists in pointing out the flaws, nor in accepting part of the blame for them. Let the sacrifice be yours. Let the man really produce instead of running back and forth in a repetitious farce of correcting the corrections.

As the salesmen say, "Sell what you got," so should you moderate your standard of perfection so as to avoid being a bottleneck. Reduce your standards? Of course not. Just avoid setting standards so high in the first place as to be unrealistic; then you won't have to reduce them. Keep in mind that almost nothing is ever done 100 per cent right. If the job you delegated to someone else is done well enough to use, use it. If it could be done better, although you find it good enough to accept and are doing so, tell the subordinate how to do it better, and insist that he do so next time or within a few times thereafter.

FOR a while, you will still be unhappy. You will feel that everything that is being done in your company could be done better. But one day you will also realize that this is inevitable. If you could see no room for improvement in the work your subordinates do, you would be of very little value to them, and you would not be a competent commander. As it is, you are performing your functions of teaching and guiding, two processes which must never be allowed to stop.

Strangely enough, you are able to write better efficiency reports on your subordinates, and other company commanders are asking the exec for them. That's a compliment, Captain, and the reason is—you. You have been exercising command through instruction and supervision. You have learned how to stand the pain of permitting others to learn by their mistakes while they were doing work of yours which you could have done with fewer mistakes, or none.

In recompense for that pain, you are secure in the knowledge that the battalion commander and his staff know you have fulfilled that indispensable requirement of able command: you know how to delegate.



It's now called 'Assault Fire'

MARCHING FIRE

COLONEL EDWIN B. CRABILL

MARCHING fire is not new. It was used in World War I, but it was neglected between the wars because it was inaccurate and wasted ammunition. But it didn't take us long in World War II to find out that most attacks bogged down shortly after the artillery fire lifted. No matter how closely the assaulting units followed the artillery, the Germans could tell when it lifted, and then would rise from their foxholes and shelters and pour a murderous fire at close range into the attacking troops. We learned the hard way that the time to start marching fire was before the artillery lifted. Fire superiority must be continuous. If it breaks, the marching line will be mowed down by the defenders.

The conservation of rifle ammunition practiced in training left a bad impression on the minds of many infantrymen. They thought they should fire only when they saw something to shoot at, and then aim carefully

enough to hit the target. But in combat the enemy can't be seen. He is always hidden in a foxhole, behind a wall, among bushes and trees, or in some similar cover. If the rifleman waits until he sees something to shoot at, he is likely to end the day with an enemy bullet through him and a full belt of ammunition around his waist. Not that he should fire his ammunition into the air, like a cowboy entering town in a television epic. He should place his shots into all the cover he is approaching where an enemy might be concealed.

The effect of marching fire is actually more psychological than physical. When bullets are crackling around the ears of a man in a trench or foxhole, he has to be pretty strong-minded to raise his head above the level of the ground. To all intents and purposes, attackers who use marching fire make their own rolling barrage. Marching fire has a psychological effect upon attacker as well as on the enemy. He

feels much better going forward shooting than just walking forward waiting for a bullet to meet him.

MY regiment, the 329th Infantry of the 83d Division, was not kept too busy guarding the line of the Sauer-Moselje Rivers, so we practiced marching fire a great deal, both with and without tanks. Our units soon became very good at this type of assault.

This training began to pay off after we relieved the 8th Infantry of the 4th Division in the Hurtgen Forest on 10 December 1944. After a two-day attack we reached the edge of the forest and looked down upon the towns of Gurzenich, Birgel, and Rolsdorf, each an anchor of a system of trenches along the Roer River opposite Duren. Gurzenich was the closest to the forest.

The 2d Battalion opened the attack with an assault on the near edge of the town and gained a foothold there. Birgel, the center strongpoint, was situated on commanding ground about five hundred yards from the edge of the forest. The 3d Battalion deployed just inside the forest while the artillery poured smoke and HE into the town. With the artillery still firing, the assault companies of the 3d Battalion moved out of the forest, each man firing, advancing a few steps,

Colonel Edwin B. Crabill, Infantry, retired, commanded the 329th Infantry RCT (83d Division) in all its training and through five campaigns from Normandy to the Elbe. Retired since 1953, he lives in Riviera Beach, Florida. This is his third contribution.



A World War II regimental commander describes three attacks using assault fire; two succeeded and one failed

and firing again. Light machine guns, each operated by two men, moved with the line and swept the edge of the town. The speed of the advance was astounding. Within twenty minutes we were overrunning Birgel.

As the assaulting companies struck the edge of the town, our artillery lifted to the far edge. The impetus of the attack took it through the town with hardly a pause. With the 2d Battalion taking Gurzenich by house to house fighting and Birgel in our hands, we put the pincers on Rolsdorf and the line of the Roer was ours. We took over six hundred prisoners in this operation.

ATER, in the attack of the lower Rhine, we had taken the town of Neuss, which is opposite Düsseldorf. Between the edge of the town and the Rhine River lay a flat plain about seven hundred yards wide, which was honeycombed with trenches occupied by the defenders of the bridge across the Rhine. The 3d Battalion was given the job of clearing the plain up to the bridge. Companies I and K attacked the flanks of the position but were stopped by fire from the trenches. For an hour we softened up the trenches with artillery. Then Company L, with four tanks, moved out of Neuss in one long line, marching straight toward the bridge, every weapon firing. I watched the attack from a tall building in Neuss. It moved forward without a pause. Not a man in the attacking line went down. As the company approached the first

trenches, the artillery lifted, while the tanks and infantry continued the advance, halting momentarily to fire each shot. As they passed over the trenches German soldiers boiled out behind them, hands in the air. Between four hundred and five hundred came out and surrendered. As the line reached the river, the Germans blew a big chunk out of the center of the bridge, and that was that. About ten days later the Germans were not so successful at blowing the bridge at Remagen.

THESE were two examples of successful assault fire. Here is an example of what can happen when it is not properly organized. By April 1945, we had driven a three-kilometer bridgehead across the Elbe River southeast of Magdeburg. The nearest large town to the northeast was Zerbst, with about 15,000 persons. In Zerbst the Germans had an officer candidate school, and they apparently used the students in their attempt to drive out our bridgehead. First they attacked our bridgehead with assault guns. This method had driven the 2d Armored Division from its bridgehead at Magdeburg, but the Germans evidently didn't know that we had ferried all our antitank guns across the Elbe. When they dashed in with their assault guns our antitank guns knocked them out as fast as they came. Then they tried marching fire, coming out of Zerbst in several waves.

It turned out to be a slaughter. They never got fire superiority. First, our artillery took them under fire, then the

machine guns, then the shoulder weapons. Not a man reached our lines, and some of the bravest soldiers I've ever seen were the Germans who died between Zerbst and our bridgehead. The field was completely littered with dead. We took Zerbst without firing a shot. A clear highway led to Berlin—about forty-five miles away.

HERE are some pointed recommendations for assault fire:

- The objective should be softened up with artillery before the assault starts. That is, the enemy must be beaten into the ground. Smoke should also be used.
- The assault fire must start *before* the artillery lifts so that there is no gap in fire coverage.
- The faster the line closes on the objective, the better.
- Light machine guns, operated by two-man crews, are a big help, particularly for sweeping concealment such as brush and trees in the enemy position.
- The waste in ammunition will be negligible if the assault is pushed rapidly.
- Distances of 500 to 600 yards for assaults are not too great if there is little cover.
- Tanks should accompany the assault whenever possible. If there are personnel mines planted, the tanks should precede the assault waves by about fifty yards to detonate the mines.
- A few casualties from mines are preferable to the failure of an assault with its attendant high casualties.

Aeromedical Evacuation

Adequate organic aircraft will make it possible for the Army Medical Service to guarantee that the wounded soldier will be quickly evacuated and that the fighting fitness of a unit will not be immobilized by ineffectives

LIEUTENANT COLONEL SPURGEON H. NEEL, JR.

The success of aerial evacuation of the wounded in Korea suggests a solution to the grim prospect that in an atomic war there will be more casualties, suffered far from field hospitals



WE CAN safely predict (it would be foolhardy to expect otherwise) that the numbers of casualties will be substantially increased in future wars, and that they will no longer be restricted to that rather shallow zone in proximity to the so-called front line. At the same time, the armed forces can no longer expect the priority in medical means that they have enjoyed in the past. Medical resources must be distributed on an equitable basis, between overseas theaters and the Zone of the Interior.

Present trends indicate that combat, combat-support and service-support units within the field army will become smaller, but simultaneously, their missions and areas of responsibility will increase. Our eventual victory will depend, to a large extent, on our resilience, or staying power. This staying power, in turn, depends upon adequate logistical support, with the ready availability of trained fighting men still the critical factor. Combat commanders must have assurance that they will not become immobilized with noneffectives. It is also imperative that those men who become wounded are rapidly restored to full effective duty.

These considerations are the responsibilities of the Army Medical Service. It faces big problems. It must be prepared to care for more casualties, over wider areas, with less medical means than ever before. Every policy or procedure which promises more effective reconciliation between requirements and means merits careful consideration. The care of the individual soldier is

ARMY

still paramount. Other considerations include reduction of noneffectiveness and economy in medical means to insure some reserve for emergencies. The Army Medical Service must be capable of performing its forward combat-support mission and this article is an examination of one means of accomplishing this task.

SINCE the Army of the future will rely upon the increased mobility and flexibility of air transportation to enable it to accomplish its basic mission, logistical elements must possess the same flexibility and mobility as the combat units they support. This means that logistical-support agencies must be provided with sufficient air transportation to enable them to adequately support forward combat elements. To fail in this would be a disservice to the combat commander.

The advantages and feasibility of aerial evacuation became apparent early in World War II. During the interim period between that war and the Korean episode, air evacuation was designated as the primary means for the movement of patients *behind* the combat zone. This mission has been accomplished by troop-carrier elements within overseas theaters, and by MATS between theaters and within the continental United States.

In Korea, circumstances required that the advantages of air evacuation be extended into the combat zone proper. The paucity and disposition of Army medical treatment facilities, tactical and terrain considerations, and the extremely limited surface communications net, all combined to establish a requirement for a rapid, dependable method of moving casualties from points of injury to Army hospitals capable of providing definitive resuscitative surgery. The Korean conflict demonstrated the effectiveness and economy of forward aeromedical evacuation using helicopters organic to and under the control of the Army Medical Service. This lesson cannot be ignored in the development of future policies, procedures, and techniques.

In Korea, helicopter evacuation under medical control, teamed with other important factors, contributed to the reduction of mortality among wounded reaching medical channels to the phenomenal figure of only 2.4 per cent. This is the lowest of any major war to date. An exact figure reflecting the number of lives and limbs saved, the

Captain William P. Brake, who evacuated 900 wounded men from front lines in Korea. He flew 311 combat missions and 234 rear area missions and spent 700 hours in the air during fifteen months in Korea



suffering alleviated, and the reduction in noneffectiveness is not available. However, when we remember that helicopter evacuation was reserved for the more serious casualty, the man of limited transportability but requiring immediate resuscitative surgery, we can be sure that the humanitarian and logistical advantages of such evacuation were considerable. The Korean experience is of twofold importance. It established the effectiveness of forward aerial evacuation under medical control, and it developed procedures for its maximum exploitation.

ARMY aeromedical evacuation is not intended to replace or duplicate support provided by other aviation agencies to the rear of the combat zone. It is, rather, an extension of the advantages of air evacuation into the most forward combat areas. It is within these areas that the timeliness of treatment, and the reduction of trauma in evacuation, are of the essence. The Army must control this type of aeromedical evacuation due to the fluidity and uncertainty within the combat zone, and the necessity for effective triage of patients undergoing evacuation.

Within the Army, the Medical Service has the basic technical responsibility for medical evacuation, whether by air or surface means. This is as it should be. Any division of this responsibility within the combat zone among two or more agencies would result in confusion, duplication of effort, and less

effective medical care. The morale of entire forward combat units would be jeopardized. The commander is vitally interested in these matters, as he is the one who is ultimately responsible for the health of his command and for the well-being of the individual soldier.

While helicopter evacuation in Korea was largely limited to the movement of only the more seriously wounded soldier within the combat zone, on occasions when surface means of evacuation were nonexistent or inadequate, it was necessary to use air evacuation to move less critical patients. Present trends indicate that such "routine" type of air evacuation will become more common in the future. Forward combat units will be increasingly dependent upon air transportation for logistical support, including medical evacuation. These same trends indicate that there will be "peaks" of casualty incidence, in which large numbers of casualties will occur in a short period of time and in a relatively circumscribed area. The mobility and flexibility of aerial evacuation offer the most effective means of meeting this problem.

In the future, evacuation will fall into two very distinct categories. For discussion purposes, these may be considered as "emergency" and "routine." It is advantageous for the tactical commander, as well as for medical personnel, to examine these two types of aeromedical evacuation.

EMERGENCY aeromedical evacuation is concerned with the rapid movement of seriously wounded soldiers where timeliness of treatment will determine whether they live or die. These men must be picked up quickly and evacuated directly to hospitals located within the combat zone. There must be no intermediate delays nor transloading. Intermediate transloading curtails the advantage of speed in air evacuation and also has a harmful effect on the seriously wounded. The selection of patients for this type of evacuation, and the designation of the treatment facility to which individual patients should be taken are based on medical considerations related to the individual casualty, and the location and status of supporting medical facilities. These patients normally require detailed medical care during flight, and aircraft transporting these patients normally cross one or more tactical boundaries.

Routine aeromedical evacuation is used when surface means are either nonexistent or inadequate. These are patients who, other factors being equal, could well be evacuated by field ambulance. In these cases, time is not of the same essence as in the emergency evacuation category. If adequate facilities are available forward for collection, treatment and holding, these patients may be held for reasonable periods. These patients are usually air transported only to the point where surface transportation is available, and further treatment and triage (decision as to treatment and return to duty) can be accomplished. These patients are normally transported by air only in the division or commensurate area. If properly prepared prior to evacuation, routine air evacuates will not normally require detailed skilled medical surveillance during flight. Normally, air evacuation of routine cases will be made only from units largely dependent upon air transportation for resupply and other logistical support.

Thus it is apparent that the primary differences between the two categories of forward aeromedical evacuation are functions of *time* and *trauma* (nature of the wound or injury). These two factors are, in turn, related to the condition of the individual casualty and his requirement for early definitive surgery. A full understanding of these two categories of all air evacuation is of considerable importance to commanders,

logisticians and medical men. This understanding, and the application of a few basic principles, will insure that casualties receive the best in medical care, and that commanders continue to receive the type of medical support they have learned to expect.

THE Medical Service is provided with minimum organic aviation to accomplish its normal and continuing mission of aerial evacuation of the seriously wounded. These organic AMS aircraft perform other missions of lesser importance. On forward sorties, they are used for the transportation of critical items of medical supply. These items, due to their rapid deterioration, extreme storage requirements, and criticality, are best stored in supporting medical installations and moved forward only as needed. Among the more important of these critical items is whole blood. In the future, even more than in the past, large amounts of whole blood will be required by forward medical treatment facilities. Aircraft, under medical control, and immediately available, permit very real economies in the distribution of whole blood.

Perpetuation of this type of medical support requires that the AMS retain a minimum number of aircraft under its control, immediately available whenever and wherever needed. There will be times (but these promise to be few and sporadic) when these air ambulances will be on stand-by and not participating directly in other tactical and logistical support missions. Pilots and other persons who fly with patients in these aircraft must be trained in field medicine so that they will be qualified to follow procedures required by patients en route between medical installations.

THIS kind of aeromedical service will be costly in terms of aircraft and personnel. So we should ask: what does the Army Medical Service offer in return? The individual soldier is guaranteed that, whenever and wherever he becomes a casualty, he will be rapidly

evacuated to a hospital fully capable of caring for him. This improves unit morale and the individual soldier's will to fight. The sense of futility at being located at an isolated forward position in a fluid and uncertain situation is reduced by the knowledge that there is an effective means of evacuation should the soldier become wounded.

The commander is insured that his unit will not become immobilized by severely wounded who cannot be cared for properly in his own medical facilities, yet cannot be moved safely by surface means even should these be available. Major commanders are insured that their organic aviation will not be diverted from normal tactical and logistical missions and to destinations beyond major tactical-unit boundaries. The requirement for aeromedical evacuation exists regardless of the organizational structure or control procedures prescribed for Army aviation. The impetus of evacuation (like all other elements of logistical support) should be from the rear. The availability of supporting ambulance aircraft, sufficient for emergency evacuation requirements, relieves the tactical commander of a very important logistical concern. He is not required, under stress, to make decisions which might subordinate the life and welfare of his soldiers to other important tactical and logistical requirements.

Air evacuation under medical control will permit real economies in the allocation of critical professional medical skills and specialties. Aviation organic to the Medical Service will result in more and better medical support, with less dissipation of critical medical means.

ROUTINE forward aeromedical evacuation, which promises to be even more common in the future, bears separate consideration. Routine evacuees are moved by air only because normal surface means of evacuation are nonexistent or inadequate. Both manpower and aircraft are conserved by such a procedure. Full use is made of forward medical installations, more effective tri-

Lieutenant Colonel Spurgeon H. Neel, Jr., Medical Corps, is a Senior Parachutist, and a graduate of the University of Tennessee's Medical School and of Leavenworth. He served a hitch as surgeon of the 82d Airborne Division, and more recently in the Office of the Surgeon General. He is currently Aviation Medicine Consultant to The Surgeon General. Past contributions were "What Makes a Jumper?" (June 1951), "The Airborne Soldier" (December 1951), and "Night Vision in Ground Combat" (June 1952).



Prompt evacuation to facilities that can provide complete treatment remarkably reduces the mortality rate among wounded

age is permitted, and short-term "minor" cases can be treated and returned to duty without further evacuation. These latter considerations are of particular importance in reducing the replacement requirements of forward combat elements. It is better from both the tactical and logistical viewpoint to return trained, experienced soldiers to their own units, than to move forward lesser trained individuals.

The AMS does not need sufficient aircraft for the entire forward aeromedical evacuation mission. Routine evacuation can be most economically accomplished by utility and cargo aircraft returning from normal logistical-support missions, if certain basic principles are accepted. Casualties cannot be considered as tonnage. The movement of all patients, regardless of their category or the type of transportation used, must be under the direction of the Medical Service. Medical arrangements are necessary at each terminus to preserve the welfare of the patient and to preclude delay of aircraft. The movement of casualties must be planned, programmed, and controlled. Wounded men should not be required to hitch-hike to the rear. Medical surveillance in flight is also the responsibility of the Army Medical Service.

When it is necessary to sustain a forward operation by air, medical evacuation requirements will normally be less than forward tonnage and troop requirements. Logisticians, however,

should permit adequate turn-around time for proper loading of casualties for the return trip, and for their unloading in the rear. In routine aeromedical evacuation, the AMS can usually mesh its plans to those of the supporting aviation agency. If more than one rear airfield is used in supporting a forward unit, it is advantageous to have all aircraft returning casualties to home on the same airstrip. This facilitates removal and sorting of patients and simplifies necessary operational coordination. If there is no medical installation near the airhead used in routine aeromedical evacuation, it may be necessary to set up a small holding element.

IN ORDER to exploit the full advantages of forward aeromedical evacuation, the Army Medical Service, which is the only agency in the Army with any real valid experience in air or surface evacuation, should participate in the development of aircraft as well as in logistical-support policies and procedures. It has developed guiding principles affecting aeromedical evacuation. These principles are important to commanders and those responsible for logistical support.

All Army aircraft should be designed so as to be suitable for transporting patients as an additional capability. The suitability and adaptability of litter installations, and the speed and ease of loading and removing patients are important. Provisions should be made

so that a medical attendant can treat patients in flight. Patients should be accommodated internally with ample room for splints and other necessary but bulky impedimenta. Pilots should possess sufficient medical training to enable them to exercise basic judgment concerning patients when required to transport them without medical attendants.

The Army Medical Service must be provided with sufficient aircraft of the proper type to enable it to accomplish its continuing mission of rapid evacuation of seriously wounded directly to appropriate hospital facilities. These aircraft must be immediately available when and where required for this mission. Casualties occur whenever troops are engaged in any tactical mission, and are not limited to occasions when special or unusual weapons are employed. Tactical commanders should not be expected to divert organic aircraft from tactical and other logistical missions for aeromedical evacuations beyond their own tactical boundaries, nor does the Medical Service expect such consideration. This provision of single-purpose ambulance aircraft is no more uneconomical than the provision of other special-purpose vehicles, such as fire-fighting trucks and field ambulances within the Army, or air- and sea-rescue aircraft within the Air Force and Navy.

The Medical Service must maintain cognizance over all aircraft, regardless of source, which are evacuating casualties, regardless of category. This does not envisage complete control of such utility and cargo aircraft by the Medical Service, but does include such matters as medical surveillance during flight, and the designation of forward pick up sites and rear destinations. In the use of this supplemental army air evacuation, the Medical Service should project and place its requirements as does any other user, and aircraft should be allocated within priorities established by the commander. Without this normal cognizance over evacuation, the Medical Service can no longer insure that the welfare of individual casualties is preserved, nor that aeromedical evacuation does not become "subsidized straggling." If deprived of its normal functions of programming, regulating and otherwise controlling the movement of casualties, the Medical Service cannot make maximum utilization of the limited numbers of specialized personnel, and cannot insure the commander that his unit will be maintained at effective fighting strength.

INTEGRATE YOUR CBR TRAINING

LIEUTENANT COLONEL WALTER L. MILLER, JR.

AMONG the sciences that man may seek to apply and exploit on the battlefield are those that fall in the fields of chemical, biological and radiological warfare. These CBR weapons offer potentialities of area effect as do the atomic or hydrogen weapons. Nerve gas (CW)—should we fear it or understand it? Biological warfare (BW)—what are its capabilities and limitations? Radiological warfare (RW)—what is its application? How will these CBR weapons affect our troops and our tactics if they are employed on the battlefield? It is known that our potential enemies have capabilities in these fields. In Korea the Communists accused United Nations forces of BW and CW warfare. Information was obtained that the Communists were conducting CBR training and that a CBR organization exists down to within the infantry rifle company. Their forces in forward areas were equipped with gas masks and some protective clothing. What was behind these preparations? Can we neglect or refuse to accept these signs?

Recently, the responsibility for CBR organization and training was placed with the unit commander—where it had always been as a part of command responsibility. The unit commander might well ask himself such questions as: Do I, my staff, my responsible subordinates, understand the tactical implications if CBR warfare is used? Do I have a proper organization for CBR so that I will have control of the situation should CBR warfare occur? Do my men recognize the signs indicative of CBR attack; are they CBR intelligence-wise? Is my command properly trained and does it have confidence that it can handle itself and continue its mission in event of CBR warfare? Are my plans flexible to meet the effect of area weapons? Is my alarm system adequate and has it been



**Properly trained combat soldiers
can perform their missions under
CBR conditions**

tested? Do my men know when to mask, how to give themselves self aid and perform such decontamination as may be required? Do they know when to take off their masks? Do they know enough so that fear and panic will be dispelled (knowing that fear of the unknown is one of the greatest causes of panic on the battlefield)? Does my unit have necessary equipment and supplies? Is it maintained so that it will be effective when needed?

To sum it up: Am I, are my staff, my units, and my men trained sufficiently to carry out our assigned mission under CBR warfare conditions? To answer these and other questions is the purpose of CBR training.

MUCH of CBR training is nebulous or of the classroom type. However, with imagination, added hours for CBR

training can be reduced to the minimum. How? By integrated training. The importance of such integration was recognized and stated in CONARC Training Memo No. 7, 31 March 1953; FM 21-48, CBR Training Exercises, published in November 1954, amplifies on this Training Memo. Integration in planning and training is the simplest, most effective method, for what is applied and practiced in training will bear fruit on the battlefield. It requires the extra time that the commander takes to plan CBR into an exercise and only the time for the troops to take necessary protective measures as they continue the problem. At first the men will possibly not perform all that the field manual calls for, but then they must learn to crawl before they run. Some suggested examples of integrated training problems are as follows (chemical attack is the easiest to introduce into a situation as training munitions are available).

Use of Weapons

A minimum requirement of combat units is that each man must be able to fire his weapon with a good degree of accuracy while masked.

Integrate the use of tear gas or other CW simulants into firing problems of combat or service type units. After initial masking, the firing of individual or crew-served weapons should continue. An occasional grenade may be used to enforce wearing of the mask for the desired period of time. Smoke may also be used on the target and on the individual to demonstrate its effect on the accuracy of aim.

CBR Intelligence Play

Introduce among Aggressor forces items of individual and collective protection such as gas masks, gas alarms, detector kits, protective ointment, and

the like. Allow friendly troops to capture Aggressors with CBR items and/or knowledge. Emplace strange tanks or cylinder-like objects in forward areas. Let it be known that Aggressor has installed tanks on his aircraft and that it has been observed that a mist settles to the ground after their discharge; that a heavily guarded shipment of matériel has been noted and that its guards wear protective clothing and masks; that Aggressor is massing his area-fire weapons such as rockets, mortars and artillery. Employ propaganda attack against friendly forces, accusing them of CBR attack (this would offer the excuse for Aggressor to use CBR or may indicate his intentions). Information obtained by forward units should be promptly reported through channels. Higher headquarters should disseminate all information it obtains.

Conduct of Unit Problem

Conduct a problem in which chemical attack follows intelligence build-up. The chemical attack should be logical in accord with the situation and not an indiscriminate attack of troops in the mess line or asleep. Aggressor ground attack should follow close behind the chemical attack. Chemical spray can be used against troops on the move or in assembly areas (water can be used to simulate the chemical agent). Chemical grenades should be placed up-wind and allowed to merge and cover the target. Firecrackers or demolition charges, simulating artillery or small-arms fire, can be used to mask the sound of the release of the grenades. Masked troops should continue assigned tasks and use detection devices for determining when to remove masks. Here are a few typical problems.

With the friendly combat unit in perimeter defense or assembly area, conduct a chemical attack closely co-ordinated with an actual Aggressor ground attack in pre-dawn darkness to take advantage of confusion and

lack of discipline on the part of friendly forces. Firecrackers or demolition charges should indicate enemy fire. The unit should detect the attack, take protective action, spread the alarm, and repel the enemy ground attack.

Make a chemical attack on a unit CP (company, battalion or regiment) in conjunction with an Aggressor ground attack on front-line elements as a harassing mission. The CP personnel should take protective action and carry on normal duties for extended periods.

Conduct a chemical attack on supporting-weapons positions during a normal firing mission. The crews should carry on regular firing duties, after taking protective action, for extended periods. (CW attack on supporting weapons either as a primary target or harassing attack can be expected particularly during ground attacks on our forces.)

To show how chemicals can be used to protect a minefield, detonate simulated persistent chemical land mines, covered by weapons fire, in front of an Aggressor defense position. Require the friendly forces (a reconnaissance patrol for example) to take precautionary measures in crossing the contaminated area. Crankcase oil or issue MR simulant can be used as a chemical agent. Tear gas (grenades or liquid) can be added for vapor effect. Contaminated areas should be avoided if possible, but if the area must be crossed in the tactical situation, masks must be worn, clothing buttoned up, and the area crossed quickly, avoiding stirring up the dust. A path cut by bulldozer or a roll of tarpaper stretched in front of the troops is a field expedient that would help reduce the vesicant effect of the chemical. Decontamination of the man and his equipment should follow as soon as possible. This must be practiced, not simulated.

Have a chemical land mine explode in an artillery area, vehicular park, or supply dump. Require friendly troops to perform decontamination of

immediately required equipment, vehicles or supplies, and to carry on normal duties.

In BW Situations

To indicate Aggressor BW attack in an area place signs indicative of such an attack for intelligence play procedures. Men should avoid use of food, water and areas exposed to attack. Water should be boiled prior to use. Food in open containers should not be used and sealed containers which had been exposed to contamination must be washed before use. Stirring up dust should be avoided. Individuals in the contaminated area should bathe themselves and essential equipment as soon as possible. Medics should prescribe the action for the agent simulated. Again, procedures must be practiced and not simulated.

Simulated Atomic-Bomb Burst

Friendly units in the near vicinity should be assessed at least 50 per cent casualties (this may be varied) of dead, walking wounded and litter cases. The ability of the unit to reorganize into an effective force should be observed. The unit and adjacent units should provide supporting fires to repel the enemy attack. Wounded men should actually be evacuated when the situation permits. Reserves should be used to counterattack and to allow the unit that has been hit time to reorganize and evacuate casualties. For surface or subsurface burst, radiac survey should be conducted for any operations conducted in the area affected by the bomb. Simulated dosages should be furnished and appropriate action should be taken based on this information, such as the assessment of additional casualties due to radiation or limitation on the duration of stay in the area for any operations. If ground dust is radioactive, masks should be worn. Actual practice under these conditions must be given.

CBR training requires the full imagination and attention of the unit commander if it is to be realistically introduced into training. The commander who fails to include CBR in his estimate of the situation, planning and training, may be courting disaster and giving the enemy a weakness to exploit. Realistic integrated CBR training will give us the understanding which can reduce the effects of these weapons.

Lieutenant Colonel Walter L. Miller, Jr., served as an infantry commander in the 101st Airborne Division during World War II. In 1949 he transferred to the Chemical Corps. In Korea he was Chemical Officer of I Corps and Operations and Training Officer of the Chemical Section of FEC (AFFE). Returning to the States, he served as Chief of the Munitions Division, Chemical and Radiological Laboratories until January 1956; he is now a member of the Chemical Corps Board. He has contributed "Flame Helps the Infantry" (December 1951) and "The Use of Flame in Korea" (March 1954).

Department of the Army Command Post



W. M. BRUCKER
Secretary of the Army



H. M. MILTON, II
Assistant Secretary
Manpower & Reserve Forces



GEN. M. D. TAYLOR
Chief of Staff



LT. GEN. J. M. GAVIN
Chief of R&D



C. C. FINUCANE
Under Secretary



F. H. HIGGINS
Assistant Secretary
Logistics



GEN. W. B. PALMER
Vice Chief of Staff



LT. GEN. W. L. WEIBLE
DCS for Personnel



F. G. MILLARD
General Counsel



W. H. MARTIN
Director
Research & Development



MAJ. GEN. P. D. GINDER
Special Assistant for
Reserve Components



LT. GEN. C. B. MAGRUDER
DCS for Logistics



G. H. RODERICK
Assistant Secretary
Civil-Military Affairs



BRIG. GEN. W. C. WESTMORELAND
Secretary, General Staff



LT. GEN. C. D. EDDLEMAN
DCS for Military Operations



LT. GEN. L. L. WILLIAMS
Comptroller of the Army

An ARMY
magazine
Photorecord

12 March 1956



MAJ. GEN. RIDGELY GAITHER
ACoS, Intelligence



BRIG. GEN. C. J. HAUCK, JR.
Chief, Legislative Liaison



MAJ. GEN. D. A. D. OGDEN
The Inspector General



MAJ. GEN. E. M. CAFFEY
The Judge Advocate General



MAJ. GEN. E. C. ERICKSON
Chief, National Guard Bureau



MAJ. GEN. W. H. MAGLIN
The Provost Marshal General



MAJ. GEN. J. A. KLEIN
The Adjutant General



MAJ. GEN. P. J. RYAN
Chief of Chaplains



MAJ. GEN. G. S. MELOY
Chief, Public Information
Chief, Information & Education



BRIG. GEN. P. F. LINDEMAN
Exec., Reserve & ROTC Affairs



LT. GEN. S. D. STURGIS, JR.
Chief of Engineers



MAJ. GEN. E. L. CUMMINGS
Chief of Ordnance



MAJ. GEN. S. B. HAYS
The Surgeon General



MAJ. GEN. K. L. HASTINGS
The Quartermaster General



MAJ. GEN. P. F. YOUNT
Chief of Transportation



MAJ. GEN. J. D. O'CONNELL
Chief Signal Officer



MAJ. GEN. W. M. CREASY
Chief Chemical Officer



MAJ. GEN. JOHN H. STOKES, JR.
Chief, Military History



MAJ. GEN. C. K. GAILEY
Chief, CA-Military Govt.



BRIG. GEN. J. L. RICHARDSON, JR.
Chief, Psychological Warfare



MAJ. GEN. J. B. HESS
Chief of Finance

THE MONTH'S CEREBRATIONS

Give the Regiment a Home Town

A YEAR or so ago this magazine carried some items regarding the British regimental system. These comments were quite noteworthy, but perhaps they would have created even more of a stir had they appeared closer to the Sage Brush maneuvers. As you know, that exercise tested the regimentless division, and DA is reported to be planning along the line of combat commands for all divisions—not just armored ones. So it seems timely to repeat that the British regimental system might be the answer to the question of how to have flexibility of organization without losing unit continuity.

Since World War II, which proved the usefulness of the armored division, our armorplated paladins and pundits have been beating the drum for Combat Commands for All. Regiments, they claim, are passé because they are too big to ride hell-for-leather with tank battalions. Infantry battalions separated from their regiments are logically incomplete, hence about as useless for mad dashes as regiments. The CC commander, they say, is a kindly, disinterested person who plays no favorites. He forges from such separate and independent tank and/or infantry battalions as may be allotted him from day to day a composite, competent force which replaces the regiment as an operational unit, yet has none of the regiment's worries with sordid chores like administration and supply. In defense of the manifest instability of such a system, they advance the historical fact that most of the time in our 1941-45 armored divisions, the same tank battalions and the same infantry battalions stayed pretty much under one CC (which of course makes a CC look an awful lot like a regiment). Our armor friends go on to say that human nature being what it is, CC commanders who have no battalions of their own are more likely to give equal treatment to any and all battalions they command at any given moment than would a biased foot regiment CO who has additional battalions attached from time to time.

Opposing these visionaries are a group of die-hard reactionaries who maintain that regiments have functioned, can function, and do function properly, in and out of combat, on wide or narrow fronts, with or without reinforcing battalions of whatever stripe. These mossbacks claim that *esprit* is equivalent in value to a good slug of "paper" efficiency or unit streamlining.

In middle ground, where it has been performing efficiently and quietly for many years, is the British regimental system. To summarize Major Julian Paget's account in this magazine [June 1954] of the organization and functioning of the Coldstream Guards, we find a home-town depot, reminiscent of the Continental *caserne* system, which handles replacements, training, and such personnel matters; plus battalions in the field—Independent, flexible, and ready for any mission; plus reserve battalions subject to call to the regimental (and, of course, national) colors on M-day. Let's see how this system can be applied profitably to our own Army.

For a start, let's assume that a CC type unit is decreed for all divisions. No more will regiments be associated with divisions (regardless of the fact that in some cases a division's regiment gave it its name). Regiments, however, will not be abolished, but will occupy, if anything, a more prominent, more glamorous position than they do now. As an example, consider the 7th Infantry (the Cottonbalers), which has fought more actions and served in more campaigns than any other U. S. unit. It got its nickname at the Battle of New Orleans under Andrew Jackson, though this was by no means its first engagement. Therefore we propose that the home base (the headquarters) of the 7th Infantry be located at New Orleans. The regiment's CO, colors, trophies, archives, replacement training activities, and all battalions not otherwise disposed would remain there permanently—come peace or war, RIF or mobilization. A big war comes and the regiment, using its own men, all trained in its own reserve battalions, activates whatever number of battal-

ions DA calls for. These battalions take the field as self-sufficient units, for assignment to any division DA sees fit to honor. Thus, the 1st Battalion might be in the 96th Division; the 2d Battalion in the 3d Division; the 3d Battalion in the 10th Division; the 4th Battalion in the 89th Division and so on. All divisions are assumed to be alike, so we list no "armored" division examples. However, replacement battalions are always in gestation at New Orleans, so if the 3d Division gets shot up we replace the 2d Battalion with the 6th; the 2d comes back home to fill up and retrain, thereby making unit replacement a reality.

At this point we hear wails from penpushers at division or CC headquarters. They find it too hard to write "2d Bn 7th Inf" (10 letters). With a hundred or more divisions, and a dozen or so battalions of infantry and tanks per division, unit designations will rapidly reach four digits. And we pass over without mention the unit loyalty problem. Which would you rather be in: the 2d Bn 7th Inf, which you have known and respected all your life as representing the U. S. Army in your home area, or the 1013th, into which you were flung after having been drafted?

By this method we achieve the flexibility and combat efficiency of the combat command organization, and preserve the invaluable continuity, tradition, and other desirable attributes of our regiments. We make unit rotation quite natural, and establish permanent embassies of the Army in every major town and city. Even the bugbear of National Guard combat employment is licked. By scattering battalions through several divisions we avoid writing off all the young manhood of any area if we lose a division or two. And unit identification is no problem. So far as any given division is concerned, when you mention the Cottonbalers you mean the battalion in that division, for any place two or three Cottonbalers are gathered together, you find the Cottonbalers.

MAJOR JAMES W. KERR
CAPT. THOMAS G. McCUNNIFF

ARMY

Let's Exchange with the Soviets

PRESIDENT Eisenhower's proposal to the Soviet Union that the United States and the Soviets permit mutual air reconnaissance of their respective countries certainly fired the imagination of the world. But, why stop there?

Why not openly propose to the Soviet Union that we also offer to exchange student officers at service schools? We would accept Soviet Army officers at the Command and General Staff College in exchange for an equal number of American officers at the Frunze Academy. This exchange would also be extended to the branch service schools.

Security should be no problem as we already have officers from many foreign countries attending most of our service schools. We have very little to hide from the Soviets in the way of tactical doctrine. The exchange of knowledge in this field should be of mutual interest at the very least.

Bringing together for mutual study those who would actually carry the burden of fighting a possible future war would certainly contribute to the lessening of distrust between nations and possibly help ease international tensions. At any rate we could make the offer and give the Soviet Union the opportunity to announce its decision to the world.

Lt. COL. IRVING HEYMONT

Thought for Food

WE are repeatedly told that ours is the best-fed army in the world. We are also the most over-fed army in the world. And the most wasteful of food.

If you eat the entire contents of the Cration box, you get 3,800 calories—more than enough to provide a day's energy. But try as I might, I can't remember ever having consumed all of what is in a box of C rations in any one day. And I love to eat.

When the combat soldier gets his C ration, what does he do with it? Realizing he can't carry the box, he breaks down the contents. Into field-jacket or shirt pockets go a wet unit, a dry unit, the fruit, and some candy. The rest of the package, so carefully and expensively assembled, goes to the bottom of his hole or into the creek. That means he'll throw away two wet units and two dry units. Why should he smoke stale cigarettes when he got fresh ones in the 100-in-1 PX ration last night?

He already has a can opener strung through his dogtag chain. In his pocket, since repple-depple days, is a bottle of halazone tablets. He doesn't need the plastic bag because his wallet and best girl's picture are already enclosed in an article that serves the purpose.

But will this calorie shortage hamper

THIS MONTH'S CEREBRATIONISTS

Major James W. Kerr, Infantry, was integrated into the RA from the Reserve in 1942. He is on duty at Sandia Base. **Capt. Thomas G. McCunniff** is a student at CGSC. He graduated from USMA in 1945, commanded a company in the 11th Airborne Division, was an airborne instructor at TIS, and served in Korea with the 3d Division. Their last contribution was "Color Coding for Convenience" (February 1956).

Lt. Col. Irving Heymont has contributed to the *Infantry Journal* on a variety of subjects. An Infantry officer, he served in ETO with the 5th Infantry Division, and in Korea with the 40th Division and ROK II Corps. He is an instructor at CGSC.

Capt. Miles C. Vaughan, Infantry, was a sergeant with the 102d Infantry in the Pacific when he won a battlefield commission in early 1945. He was integrated into the RA in 1950. He served in Korea with the 2d Division and is now with S3 of Combat Training Command at Fort Benning.

Capt. John G. Mantolas, Infantry, enlisted in the CAC in 1940, was commissioned in the Infantry in 1945, and integrated into the RA in 1950. He served in Korea with the 65th Infantry, and is now with Japan Procurement Agency in Yokohama. He contributed "Let's All Fly on Platforms" in the December 1955 issue.

Lt. Col. John E. Burke, Corps of Engineers, enlisted in the NYNG in 1933 and was commissioned in 1940. He served in the South Pacific during WWII, in Korea in 1945-46, and in Japan in 1951-53. He is a graduate of the Engineer School and is now Engineer Instructor in the Tactical Department of TIS.

Lt. Col. Willard L. Jones, Artillery, was commissioned in the Infantry from the ROTC in 1928, and transferred to the AAA in 1940. During World War II he served in England and Africa with the 107th AAA Battalion. Now on duty in the Office of the Chief of Military History, he wrote the FA volume in the *Army Lineage Book* series, and is preparing one for the AAA.

his performance? Strangely, it will not. He'll last a long time on a daily diet of one or two wet units. He may lose weight, but he'll get down to muscle and bone, which are all a fighting man needs.

This guy is lucky. He got a whole box of C rations, including fruit, from which he could choose what he wanted to carry. During a normal combat day a unit is issued only one C-ration meal. The squad leader hands the whole box to one of three men to divide. They sit there sullenly, glaring at one another, all with the same thought: "Who'll get the fruit?" In Korea during the winter of 1950-51 my daily fare consisted of a wet unit, sausage, a dry unit, cookies, cocoa and—"the fruit." I settled lots of arguments before they could get started.

I admit that other delicacies were available, like beef with gravy and pork with gravy. But between the time these tidbits were thrown into my mess gear and the time I found a rock to sit on, they froze into a mass that TNT couldn't have budged. So, I would go back to my C ration diet.

The reason I and most others carried only one meal was the size of the can. It seems these cans are designed for storing on shelves instead of in pockets. Maybe the size is a carry-over from the type designed for the old haversack. Anyway, it's too large for carrying and contains too much for one meal. I know few men who made one meal from the entire contents of one can.

Here's my idea of a good combat ration:

- It should be a one meal affair.
- It should be packed in a box small enough to carry in the pocket of a shirt or field jacket. If packed in cans, they should be No. 1 flats, like those tuna fish is packed in.
- It should consist of a wet unit, a dry unit, fruit, and an accessory package.

Note the similarity to the requirements for the assault ration which, except for the fruit, completely fills the bill for a combat meal.

When the assault ration first came to Korea, all unit commanders, like myself, received it with open arms (and mouths) as the answer to our problem. One meal, no dividing, small, easy to carry, not too much and not too little. And it had its own heating tablets.

We flooded the people upstairs with requests for assault rations. The an-

swer we got? The assault ration was not really a ration; it was free, to be used only on special occasions; it didn't contain enough calories.

The assault ration contains 900 calories; one third of a C ration has 966 calories. So let's do away with the present C ration. All we need to do is add fruit to the assault ration and we'll have a perfect combat meal.

CAPT. MILES C. VAUGHAN, JR.

Organize the Flying Rifle Company

NOW that the Army has purchased several flying platforms and aero-cycles, the question arises of how we will exploit the advantages these vehicles give us for mobility, utility, and surprise. What can we expect of these machines and the men who will fly them? How will we organize the units that will use these machines?

Obviously specifications and standards of performance will be necessary. These vehicles must be simple for easy and inexpensive maintenance and operation; light for easy handling and storage. Range and speed must be such that necessary missions can be accomplished. They should be able to cover 100 to 200 miles at cruising speed of approximately 50 miles per hour, at altitudes that will enable them to clear safely most natural and man-made obstacles.

During daylight these vehicles can fly slow and low enough for short distances to allow the operator to navigate by visual flight rules, guiding himself by roads, rivers, and other landmarks. If the vehicle is equipped with compass, altimeter, air-speed indicator, and possibly a turn-and-bank indicator, flying at night should be no problem. In-air collisions could be avoided by placing luminous strips on all four sides. Whether or not the vehicle's radio set should be portable or part of the vehicle itself is debatable. But since the Signal Corps is developing smaller and more powerful sets, it would be desirable to have portable radios.

The operator's cage should be fully inclosed with the new missile-repellent lightweight plastic, with a windshield like a motorcycle's to protect his face. He should have a rack for weapons and bins for storing ammunition. Lightweight field packs could be strapped on.

The vehicle should be of a size easily transportable by rail, water, or

air. It should be able to take off from a ship or to be launched from a conventional aircraft or a larger flying platform.

The trooper's battle dress should be of lightweight, wind-resistant, water-repellent material, preferably of the coverall type. This garment could be electrically heated during flight, fed by a plug-in to the craft's electrical system. For operating away from the platform, small flat batteries could be zipped into pockets of the flying suit. The helmet should provide warmth, protection from shell fragments, and have crash-helmet characteristics. The heavily reinforced paratrooper boot would be suitable for footwear.

Before we organize the unit we must know its mission and capabilities. The flying rifle company won't fight from its aerial vehicles. Therefore, it should be trained in all of the normal tactics and skills of a rifle company. Obviously every man must be aggressive, able to think fast, and thoroughly trained. The standard should be not less than that of today's ranger.

Until we know more about our Atomic Age organization, the flying platform rifle company should be organized along conventional lines. A few variations, based on mission and capabilities, are indicated. Kitchen personnel could be allotted to battalion headquarters, and company and platoon headquarters should be stripped of some of their clerks and drivers (they won't need jeeps). Fewer ammunition bearers would be required since the flying vehicle can bring ammo right into the infantryman's position.

As with any new concept, careful planning, experiment and training will be necessary if flying platform troops are to be effective.

CAPT. JOHN G. MANTALAS

Combat Engineers and Mobility

WHEN you ask a tanker if he would like his engineer support reduced, he answers "No!" He knows his success depends on mobility, and to attain mobility he must have adequate engineer support. And that is why the armored division has the largest engineer combat battalion.

On the other hand, while we all agree that today's infantry division—and tomorrow's—must have even greater mobility, certain planners who talk of mobility for the infantry division would set into motion a gimmick to

reduce that mobility. I refer to the lack of appreciation of the importance of combat engineer support to the mobility of the infantry division. In speaking of reducing the infantry division's size, without batting an eyelash they point to the engineer combat battalion and say, "Let's begin here." What sort of thinking is behind this, and how will such an approach increase the division's mobility?

Most soldiers at some time or other have seen the destruction on the battlefield and the rubble in cities that battle has passed. They have seen movement of men and equipment slowed by obstructions that result from battle, to say nothing of deliberate bombing and the erection of man-made obstacles tied into natural features. How overcome these barriers, be they produced by battle, bombing, or Nature? Any combat commander can supply the answer: Use your engineer troops.

Of course, the planners say we are developing, or will develop, vehicles and equipment with cross-country mobility heretofore unseen. Isn't this expecting too much? Even the tank, with its cross-country capabilities, can't get over some ground or climb very steep grades. Would not a vehicle or piece of equipment built for complete cross-country mobility lose many of its military characteristics? I am not belittling the idea that we want more cross-country capabilities. But vehicles built for crossing gently sloping land still need engineer support to move them through battle zones.

After World War II, on the advice of officers of all branches who fought in infantry divisions, we increased the size of the divisional engineer combat battalion by adding a fourth company and increasing its heavy equipment. This increase, mind you, was based on experience. Does anyone imagine that in a war fought with atomic weapons the destruction in battle areas or cities will be less than what we experienced in World War II? Visualize the devastation to roads and installations that an atomic explosion can make and you get a picture of work of a magnitude unheard of before the Atomic Age.

All of this is only one aspect of the problem. Let's consider the need for dispersion. During World War II and the Korean conflict it was not uncommon to see an engineer combat battalion spread out thirty-five miles and more. Can't we perceive that it will be spread out still more in an operation where tactical atomic weapons are used?

Won't we have increased problems in maintaining communication routes? I think we will, and here are three fields where we can look for increased workloads. For maintaining roads: the use of atomic weapons may call for relocating roads, rather than repairing them. Bridges: wooden structures in particular would need replacing or relocating. The more miles of road maintained, the more bridges and culverts. Underground construction: without doubt, shelters for command posts and communications installations will be necessary. These three citations are enough to give an idea of the engineer soldier's increased workload.

So where does all this lead us? To be honest, I do not have a ready answer. But we can't solve the problem by putting the cart before the horse, by creating an organization based solely on the need to reduce numbers. It would be more realistic to take the organization we now have, that has stood the test of long experience, and try it under maneuvers that simulate atomic conditions. The results of such a maneuver would provide many answers to the problem. Certainly not all findings would be workable, but at least we would be working in the right direction. The problem could be attacked by restudying the mission and capabilities of the divisional engineer combat battalion to determine what support a division commander would like to see eliminated from the mission of his engineers. From there on we could work out an organization to fit his requirements. But whatever the approach, simply to reorganize without examining the tasks a commander wishes a particular unit to perform doesn't make sense.

LT. COL. JOHN E. BURKE

Minute Men: Placed to Shoot

THE passage of the Military Reserve Act of 1955, together with the stated military policy that the purpose of the Army is to defend the United States, presents an opportunity to carry out that policy in a manner that can be of mutual advantage to the nation and to the young men involved. The presence of antiaircraft rings around our largest centers of population affords a unique opportunity.

The men to be trained by MRA are at an alert military age. They complete their six months of service when just under twenty years. To keep them in-

terested in military affairs will take more than assignment to a Reserve unit. They need duty that means accomplishment, and achievements they can adjust to their daily lives.

The Army needs them, not as "bodies" to be called up in emergency but, as our leaders have said, as part of a force in being, a "ready" reserve. Reserve units can take the field in six to ten months—if we have that much time, and if we have the communications and transportation network intact to assemble them, and if the manufacturing system is operating to equip them.

What better way to insure national security than by preserving these basic facilities? The question is answered by assigning these men to these AAA and GM sites.

The administrative and legal obstacles are great, but not insurmountable. Congress can easily clarify the legal problems. Of course, a man should be assigned to a unit in the defenses surrounding his home city. The unit in turn can assign him to the battery sited nearest his home.

At the unit level the part-time soldier can be carried on personnel, pay and supply records like other members

of the unit, with proper notations as to status. Messing presents no difficulties. Sleeping quarters can be assigned with those of the other men on a stand-by basis for those occasions when duty calls.

Reservists will know their duty stations, their officers and their comrades, and have a sense of belonging to a going concern whose history, traditions and mission they understand and of which they can be proud. They can perform their legal obligations on days best suited to the conditions of their employment or schooling. Training periods held at night would vary the conditions of service and give valuable practice. The civil defense air-raid warning would be all the notice needed in the absence of a formal call, to get them when and where needed. Annual field training can be arranged to correspond with the unit's time on the firing range.

Promotion and opportunity for specialized training would be open to them as to all others in the battery. They might be persuaded to adopt the Army career as a good one, or at least to extend the length of time they must serve in the Reserves.

The advantages to the battery are great. Crews and sections would be full strength. Batteries would have broader social contacts in the communities and a better realization of whom and what they are defending. Regulars will learn how to integrate quasi-civilians into operations. This is a forward looking step, for after the whistle blows a goodly portion of the manning details will have to be civilians. Then these soldier-civilians will become the link between the AAA battalions that moved out with the field army and the civilian-soldier who must fill the void left by their departure.

There are tremendous advantages to both the service and the man. So let's assign these young men where they can receive steady training in vital skills, on the latest electronic equipment. Educators are alarmed over our shortage of scientists. Here is a chance to give scientific training to men in the formative years of their education.

Reservists will have a personal interest in their assignments, receive valuable military and scientific training, and get pleasure and profit from their military service. In short, everyone profits if we send our Minute Men to the AA.

LT. COL. WILLARD L. JONES



IDENTIFY YOURSELF AS AN AUSA MEMBER

Many Association members have asked us why we didn't have a lapel button they could wear with civilian clothes. They were proud to be members of the AUSA, they said, and wanted people to know they belonged.

We think it's a fine idea, and we're happy to tell you that lapel buttons based on the Association seal are now available. They're 7/16" in diameter, satin-finished in nontarnishing gold-colored metal.

Order yours today. \$1.00

(Sorry, no discount on these.)

Order from

**ASSOCIATION OF
THE U. S. ARMY**

1529 18th St., N.W., Washington 6, D.C.

THE MONTH'S READING

Questions

WILLIAM MARCH
Company K
From A William March Omnibus
Rinehart & Company, 1956

We had been silent for a long time, and then my wife spoke: "I'd take out the part about shooting prisoners."

"Why?" I asked.

"Because it is cruel and unjust to shoot defenseless men in cold blood. It may have been done a few times, I'm not denying that, but it isn't typical. It couldn't have happened often."

"Would a description of an air raid be better?" I asked. "Would that be more humane? Would that be more typical?"

"Yes," she said. "Yes. That happened many times, I understand."

"Is it crueler, then, for Captain Matlock to order prisoners shot, because he was merely stupid, and thought the circumstances warranted that, than for an aviator to bomb a town and kill harmless people who are not even fighting him?"

"That isn't as revolting as shooting prisoners," said my wife stubbornly. Then she added: "You see the aviator cannot see where his bomb strikes, or what it does, so he is not really responsible. But the men in your story had the prisoners actually before them. . . . It's not the same thing, at all."

I began to laugh with bitterness: "Possibly you are right," I said. "Possibly you have put into words something inescapable and true."

We Must be Ready to Win

ADMIRAL ARTHUR RADFORD
Address, Reserve Officers Association
Washington, 11 February 1956

Our first requirement is to be strong enough, and ready enough, in all departments to deter any method of aggression that the potential enemy may choose. . . .

Our primary military role in the furtherance of national security is a *readiness* role. It is to help prevent war if possible; and *to be ready to win it if it occurs*.

New Boy Made Welcome

"J. P. H."
Journal of the Royal Artillery
January 1956

When my leave was over I began a 6 months attachment to 1st Guided Missile Brigade [at Fort Bliss], where I was employed as Assistant S3 (Training) of 2d Guided Missile Group, the Corporal Component of the Brigade. It is not a common experience to be the only British officer on

the Staff of an American Headquarters, and it was a privilege to be accepted on such terms. From the very first, my Commander made it clear that I was not to be a spectator, but an active member of his staff, and that I would be treated as such. As a new boy, I was made very welcome, shown great kindness and given responsibility. The inevitable mistakes that I made were loyally put right by the officers with whom I worked, and for all of this I would like to record my grateful thanks and deep appreciation.

One day I found in my "In" tray a paper in which I was sure my Commander would be immediately interested, for it concerned a project on which he was working at that time. I attached the usual slip, gave it "Priority" and initialled it. In my innocence I used a colored pencil and put the paper in my "Out" tray which was emptied five minutes later. For the next hour or so there seemed to be an air of great activity in the headquarters. People ran up the corridors, files were required immediately, copies of reports turned up and so on. I took no part in this, considering that if the matter concerned me I would, no doubt, be informed. Two hours later the hubbub subsided, and I was quietly taken on one side and told firmly that I was never, never to use a red pencil. That was the prerogative of the Commanding General. The executive officer of the Group, into whose hands my "priority" slip had arrived, had spent a hectic morning writing for the Commander the brief that he would need when the Commanding General sent for him in connection with the paper. My initials had not been recognized; their color had wrought the mischief.

Succinct

TIME
26 December 1955

It is the destiny of the professional soldier to wait in obscurity most of his life for a crisis that may never come. It is his function to know how to solve it if it does come. It is his code to give all that he has.

Guided Missiles: Tank and Antitank

MAJOR NELS A. PARSON, JR.
Guided Missiles in War and Peace
Harvard University Press, 1956

The argument is sometimes advanced that a guided-missile carrier would improve upon the tank armed with a conventional gun. Is this a reasonable proposal?

The characteristics of armor that are to be exploited are its battlefield mobility, armor-protected firepower, and shock effect upon ground troops when used in mass. The greater value of the tank lies in its ability to exploit a breakthrough, not to create it. It is used to best advantage in the

fast-moving offensive, not in passive antitank defense.

It is true that because the tank is still the best defense against enemy armor a commander threatened with an enemy armored attack must tie his own tanks down to a defensive antitank role. A frequent suggestion is that an inexpensive tank-destroyer vehicle firing guided missiles could free the conventional tank of its defensive role. Another theory is that the tank is inadequate in its primary role, because its great weight and size limit its mobility, both for cross-country operations and for air transportability. One recommended replacement is a much smaller tank armed with guided missiles.

An answer for the defense does lie in the short-range guided missile. There is almost no limit to the size of the warhead that can be delivered. Large booster rockets now in existence can accelerate almost as rapidly as a bazooka round. But a general-purpose assault missile could have an effective warhead without being excessively large. As an artillery-type weapon firing from behind a hill or other protected area, its attrition rate in battle should be far less than that of tanks because of difficulty of location by the enemy. There are several possible guidance systems that could be employed to produce high accuracy.

The requests that tanks be relieved of a purely defensive mission or that they be given greater tactical and strategic mobility are understandable. But the missile-armed carrier would have to be a great improvement on the tank to justify its existence as an offensive weapon.

As for improving tank mobility by arming the tank with missiles, the philosophy is questionable. Missile rounds will be much larger than tank-gun ammunition; therefore, fewer rounds can be carried. They could not be carried outside the armored hull, for they would be damaged too easily. The missile-launching tank would have to carry more electronic equipment for guidance, a more highly trained crew, and far more expensive ammunition. If there is no other way to get armor-protected firepower into an airhead, and assuming the missile tank can be much smaller than the conventional, the development may come. But the prospect seems unlikely.

Great Captain

BRIG. GEN. HARRY H. SEMMES
Portrait of Patton
Appleton-Century-Crofts, Inc., 1955

"When Daddy came back in '45 on that quick tour [said General Patton's daughter], I asked him to come to my ward on the day he visited Walter Reed. He loathed visiting hospitals but he said he would, and he got in there with Mother, two doctors, and myself. I had worked there so long I didn't realize how pitiful my patients looked. There was not a man in there over thirty-five and every one was missing all or part of at least two limbs. Daddy marched in looking magnificent and stood right in the middle of the ward. There was a throbbing silence and then he began to bawl, hauled out his handkerchief, mopped his eyes and said, 'Men—all I can say is, if I had been a better general most of you wouldn't be here.' Then he marched out. There wasn't a dry eye in the ward."

APRIL 1956

Self-Respect and the U.S. Fighting Man

PAUL DE GYARMATHY
U.S. Naval Institute Proceedings
February 1956

This week's maxim in the Institute's calendar says that "self-respect is the chief element of courage." Subconsciously, I always felt it so, but not being Thucydides, I did not formulate it in words. The nearest I have ever come to express the same idea was in a harangue I once delivered to a couple of American officers while analyzing the American fighting man. They all admitted that I was right, and also that they had never thought about it before in the same way.

In order to make myself better understood I must go back to 1914 when I was a shiny new second lieutenant in His Majesty's Royal Hungarian Honvéd (a small and somewhat exclusive segment of the armed forces of the late Austro-Hungarian Monarchy).

Hungarians never liked the Austrians or the Germans, and had not a trace of hate for the Russians. Moreover they lived in a fools' paradise, not realizing that the very existence of their country was at stake in World War I.

Nevertheless, they fought so well that even German generals felt compelled every now and then to acknowledge the fact. An English book after the war said that the best fighters in the first World War were the Serbs and the Hungarians, in that order.

If the Hungarian had little love for his allies and no hate for his enemy, then why did he fight so well? Self-respect is the answer.

After World War II, I came in close touch with Americans from G.I. to general, from seaman to admiral, probably from all the 48 States.

The American is above all not of the chauvinist patriot variety in the European style. He won't stand any nonsense about the U.S.A., but his heart does not stretch from Portland, Maine, to Portland, Oregon. It centers rather in his home-town and seldom wanders over the state-line.

As regards his hate for the enemy, such emotion is simply non-existent—not even against the Japanese who did their best to deserve undying hate, which from many another race and nation they have indeed received. But not from the American soldier who only weeks after the end was already sharing his chocolate with Japanese kids.

Then why did he fight so well? The answer is again the same: "Self-respect"; that determination of "I am going to show that guy that he is *not* a better man than I am." After he has "shown it," he quickly cools off, and everything is just lovely.

The Britisher can be a good soldier because he is stubborn. The German is super-disciplined. The French is good only when the going is good; in defeat he is hopeless. No doubt the Russian is also good, but only because it does not make much difference for him whether he is dead or alive; he never had much to live for anyway.

It is queer how understanding my own people has helped me decades later to understanding the American fighting man. [©1956 by U. S. Naval Institute]

No Place for Glory Hunters

The men of the Army's Counterintelligence Corps find hard work more rewarding than cloak-and-dagger dramatics

THOMAS M. JOHNSON and COLONEL R. ERNEST DUPUY

A YOUNG American clad in civilian clothing was carried into the headquarters of the Counterintelligence Corps in an Austrian city bordering on the Russian zone. His clothing was ripped, his body bruised, his hair blood-matted, his eyes blacked. But they glowed with triumph as he handed a small roll of tissue paper to a U.S. Army officer.

"The Russians didn't get this," he mumbled through broken teeth. "It's worth all the SOBs did to me—plus!"

The paper was an informant's report, telling when, where and how the Russian intelligence service would try to slip an agent into our forces guarding Europe's frontier of freedom.

That agent was like many others who are the strength and the soul of a remarkable body of men: the Army's Counterintelligence Corps. Although far from inglorious, by the grim necessities of their semi secret service and by their own desire they have been mute and little known, not only to the American people whose safety they protect, but even to many members of our armed forces.

In Africa a fifteen-man CIC detachment, in screening 25,000 Arab laborers, detected a number who, for a consideration in Italian lire, had been dumping sugar into American gas tanks. They clammed up some Allied flyers who had been discussing past exploits and future plans rather loudly in cafés. They spotted Nazi agents among employees of a vital American-run railroad. They kidnaped a drug peddler who led them to an ambitious Nazi master spy, and many more.

These true stories indicate how the safety

and efficiency of the Army, and of the nation it defends, are bound up with the semi-secret CIC. It has the difficult, delicate, often dangerous mission of security, which means safeguarding an army's secrets, silencing or seizing the few careless or disloyal who might betray those secrets, and foiling or trapping spies who would steal them. The esoteric calling of the CIC agent sometimes affords drama, but more often drudgery.

CIC is no place for softies, be the war hot or cold. In Germany, the Russian MGB, which considers CIC its deadliest enemy, has seemed intent on attempting to terrorize CIC officers. MGB agents have shadowed their homes, followed them afoot or in automobiles, tried to run down their cars, shot at them from ambush, and reportedly offered rewards for kidnaping them.

A CIC agent must be versatile. One was chosen for a difficult mission because he was an engineer, as well as a baseball fan, a Buddhist, spoke French, and had thirteen other qualifications. The ideal agent must be sly as a fox and, if necessary, as pitiless as a tiger in a lone-hand operation regardless of odds; yet he is subject to his superiors' orders and his country's best interests. He is no Dick Tracy, but a patient investigator who never shrinks from hard work in detecting folly, deceit and treachery.

Lawyers, being accustomed to gathering and weighing facts and to matching wits with witnesses and opposing counsel, once made up sixty per cent of the CIC. One, now prominent in the Chicago bar, nabbed so many Ger-

man spies that the *Abwehr* ordered no more to his sector.

Newspapermen, those persistent diggers for facts, are promising CIC material. A Washington city editor headed Seventh Army's counterintelligence section. A former Cincinnati reporter's curiosity detected a female agent who was helping delay the Allied capture of Brest—one of the few really dangerous specimens of "lobby vamps" so celebrated in spy romance.

Several Congressmen have served in the Corps. So have pharmacists, taxidermists, and an undertaker. A CIC detachment commander in Korea used to be a railroad man; among his assistants were a quondam poet, a columnist from Hawaii and a one-time dance-band leader from Brooklyn. CIC has holes to fit pegs of many shapes. Scientists are often valuable.

Agents who were explorers and doctors, ostensibly investigating tropical diseases, penetrated South American jungles. They offered the natives inducements such as flashlights, hatchets, and sundry cheap but glittering gadgets after the natives had promised that no would-be saboteur would ever get through the jungle to damage the Panama Canal. CIC's over-all defensive measures were so effective that the German secret service had no plans to sabotage the Canal.

Another agent had been a researcher. Before a landing in Italy he compiled from intelligence sources a remarkable card index which covered every town his detachment would enter. It listed the important Fascists to be questioned and the anti-Fascists who would help catch them. That file listed all the brothels, too. The *signorine* proved opulent sources of information about Fascist leaders. Thereafter CIC gave priority to such resorts—entirely for official business.

THESE ingenious spirits who so uniquely serve our country are not "drafted." They volunteer, and pass an obstacle course of tests. They must be natives of this country, or have been citizens at least ten years. They must survive a minute and lengthy investigation of their past lives, especially their loyalty and moral charter. They must satisfactorily complete Army basic training before beginning the ordeal at Fort Holabird, Md.

If they stay in the Corps, probably they never will get to be generals. The Army does not thus encourage a career in intelligence or counterintelligence.

But many CIC enthusiasts have found they wanted to remain longer than others stay in other branches where material rewards are greater. After VJ-day many CIC personnel found their Cold War work so urgent and fascinating they couldn't quit. Many more enrolled in a voluntary reserve and returned to active service for the Korea fighting. The Corps has a hard core of veterans who have known no real peace since Pearl Harbor.

Officers must be college graduates or have special qualifications, like familiarity with foreign countries and languages. Also, there is a special preparatory course for agents going on foreign service. Candidates must pass the Army's stiffest mental and emotional tests, and have the IQ of officer candidates, plus a high-school education. They begin on probation, and a third of them wash out in the tough four-month course. Nonmilitary instruction includes foreign affairs, languages, psychology and law, photography, secret inks and codes, detecting falsified documents, picking locks, cracking safes, and disguises.

AN agent's best disguise often is simply a good cover into which he blends: that is, a genuine job at which he is proficient enough to appear plausible. A CIC agent went to work as an orderly in a North Africa hospital, to determine how German prisoners were getting knives, ropes and maps. He found that at night a GI patient visited the toilet, which adjoined that of the Germans, oftener than seemed necessary. Through the thin partition the American and the POWs arranged about smuggling in materials for a breakout.

This agent asked the soldier if he knew how a German souvenir pistol could be bought. He was sent to an Arab dealer who gave him a package containing four pistols and a rope. The agent delivered the pistols to the would-be deserter, who pointed one at him and threatened, "Beat it!" But that night he and the POWs were trapped. Twelve Germans got light sentences since it was natural for them to attempt escape; the American was hanged.

GERMAN-AMERICAN agents are invaluable in countering the intrigues of East German Communists, and have broken up several conspiracies to restore Nazism. Two German-speaking agents prepared for a year against

that stormy winter night when they rounded up nearly a thousand Nazi conspirators, and the list of democratic German *Bürgermeisters* and CIC officers and agents marked for massacre. Captain Edward W. Lattner, Bavarian-born but American all through, posed as an admirer of Hitler and won the confidence of another plotting group, headed by two former Nazi generals. Then he drove them in a truck through the gates of the Munich headquarters of CIC.

CIC agents seldom testify openly. The Russians covet names and data concerning members of the Corps; they have tried to steal or photograph its records and even to infiltrate its ranks.

Agents learn that strong drink and loose women are weapons to guard against. CIC personnel lead a sort of double life. They are men apart, yet they must mix in order to know what goes on in the international half-world. Many a good tip is picked up at a cocktail party—if the picker has not partied too much. But always the Corps must be alert. They are silent partners in delicate enterprises involving our national interest.

The CIC school at Holabird, Maryland, stresses that a quick draw may save an agent's life, and explains the advantages of the short .38 in a shoulder holster. The agent can, however, fire all the soldier's weapons, and not infrequently does.

DEATH in line of duty has come often to CIC wherever it has served, notably in Korea. There its officers and men have shown again that they are not just gumshoes, but fighting men too. The Corps was called upon to track down a multitude of spies, saboteurs and guerrillas, and often shot it out with them. Officers and agents received decorations for gallantry, of which no few were posthumous. CIC citations are never published, but there are many untold tales of its self-facing service.

They begin just before Pearl Harbor, when that starved orphan, the Corps of Intelligence Police, burgeoned into the CIC. Eagerly its novice agents began buttoning up the Army's lip.

CIC is especially happy in accomplishments that save American lives. Those achievements are mostly in preventive security work which presents innumerable anxious questions. Are files and safes, in offices where classified matters are handled, kept locked when not in use? Are waste paper and work

sheets containing telltale memoranda burned, or left in baskets for charwomen to pocket? Are conference rooms actually sounding boards for eavesdroppers, thanks to ventilators or hidden microphones? Are passes to sensitive areas, where secret work is done or secret equipment kept, carefully checked?

The Corps' greatest job of wartime preventive counterintelligence was its keeping a crucial secret: the place and time of our landing in Normandy. Every Allied and American counterintelligence agency played a part, but none so important as that of two thousand CIC agents in England who plugged every possible leak, from American soldiers talking too freely in pubs or officers in night clubs, to secret papers mailed accidentally to a woman in Chicago.

THOSE vigilant agents did extremely well a tough task: educating American officers and men in the necessity of not talking too much in public or even in private. Our generous, optimistic and relatively truthful youths have been reared amid the practice of freedom of speech. Like all Americans, they love to be sociable. So do their parents. Not for the world would they "give military information to the enemy." They just *must* tell some friend that Jimmy is sailing on such a ship or that Johnny has graduated from such a radar school and is now on "secret stuff." "I'll tell you, but don't you repeat it."

CIC officers lectured on the danger of saying anything to any person about military matters, especially about when they thought they were going to put

out for Normandy. "If someone asks you—even your girl friend—report it," CIC urged.

Some soldiers did report, fortunately for themselves, their comrades, and the Allied world. As a result of one report a spy ring in England was broken up that was tipping off the Nazis about our preparations for the great jump-off.

SECURITY work comes first with CIC. It aims to keep enemy agents out of the Army's ranks or, if they get in, to prevent their getting information. The actual catching of spies is, however, more dramatic and scarcely less important in these days when more enemy agents than ever in our peacetime history are trying to steal our military secrets.

Along Korea's muddy roads, thousands of white-clad refugees came shuffling into our lines, but immediately they were screened by keen-eyed CIC agents. One agent noted two Korean women among a group, who were surprisingly clean and not bad-looking, with red ribbons in their hair. Suspicious, as all CIC personnel must be, the agent searched them thoroughly. This produced outraged cries—and sheets of tissue paper on which were written questions about American dispositions, morale, and equipment, ending: "When, where and how will the Americans use the atomic bomb against us?"

Questioning revealed that the girls had been chosen for physical attractions and some knowledge of English, by North Korean and Russian intelligence officers. These preceptors had

given them the questionnaires and they were to get the answers from American officers—the higher in rank the better—to whom they were to attach themselves. They had been told that the easy-going Americans wouldn't hurt them. If the girls needed help they could call upon any of a group of male spies also posing as refugees, and who wore the red ribbons in—of all places—the flies of their trousers.

The interrogators elicited descriptions of eight more girls, and then sent the two to the South Koreans, who were not "easy-going" with spies of either sex. CIC also distributed the red-ribbon story to all detachments, American and Korean. Scrutiny of refugees' coiffures and trouser flies got the remaining eight girls and more than a hundred men.

In war and in peace, CIC has caught many women spies and found them so variegated in nature, effectiveness, and morals, that concerning this doubly intriguing species its agents venture only this generalization: "You can't generalize much about women spies."

The Russians use women of all nationalities freely, especially against our troops abroad, whom they consider either naive or sex-obsessed. Usually, however, they entrust the more complicated and technical espionage to men. They are forever probing our defenses, material and moral, for a soft spot. Against these probings, from the ends of the earth to the ends of the earth, CIC is the Army's foremost and stoutest shield.

THE Corps has carried out its mission: "To throw a smoke bomb into the enemy's observation post." It has blinded hostile intelligence services and caught thousands of foreign spies, saboteurs and war criminals. After having captured Kaltenbrunner, director of all Nazi secret services, it unearthed the activities of Sorge, Soviet master spy in the Far East, and liquidated Benno Blum, head of the biggest Red kidnaping ring in Central Europe.

Spies are more dangerous today than ever before, largely because of three inventions: the airplane, the parachute, and the portable wireless transmitter (WT) set. The airplane transports the parachute, the WT and the spy to the air above his objective, which is a chosen sensitive area or rendezvous in the enemy country. The parachute drops the WT and the spy, and he then reports on his radio what he sees and hears plus what other spies who accom-

Thomas M. Johnson is a long-time collector and writer of true "spy" stories. He was a war correspondent with the AEF, and later wrote a book on its battles. His interest in spies and saboteurs led to the collection of many stories on the work of MI and CIC agents in World War I. These appeared in magazines and later were gathered into a book, *Our Secret War*. He first appeared in the *Infantry Journal* in 1933 with a spy story, and has written several since for this magazine. In 1941 he collaborated with Fletcher Pratt in writing a book on World War I's "Lost Battalion" of the 77th Division. His latest contribution was "Battle Underground" (June and July 1953). Mr. Johnson lives in New York City.
Colonel R. Ernest Dupuy, Artillery, Retired, entered the Regular Army during World War I from the NYNG. He was a CAC battery commander, regimental adjutant, and operations officer. After WWI he transferred to the Field Artillery. During World War II Colonel Dupuy was supervisor of press, radio and pictorial coverage for SHAEF and was a member of the official surrender party at Berlin on 8 May 1945. He will be remembered by our readers as the author of the moving history of our Army during the past 50 years which was written especially for our 50th anniversary issue of October 1954.

pany him in the plane or with whom he makes contact on the ground, see, hear and repeat to him. But spy hunters have learned to catch the airborne invader, also with the aid of science.

As the plane prowls above its objective, before disgorging passengers and cargo, it can be detected by radar and microphone. Nearby CIC agents, troops, even alerted farmers, can be waiting for the parachutes to touch down. They frequently bear interesting equipment and messages intended for whomever their passengers were to get in touch with. Most welcome of all are the passengers themselves. Shaken by their landfall and their capture, they often tell all they know. If only WT sets are dropped, to be picked up by waiting agents, they advertise their whereabouts when they begin flashing information by their special code and wave length.

The captured spy's WT set can be used against him. First the spy must be persuaded that his life depends upon his willingness to double-cross his former masters. Then the counterspy concocts for the spy radio messages blending harmless statements that the enemy knows are true, with falsehoods we wish him to believe. Finally, the captured and doubled operator himself must send these "reports," because the receiver behind enemy lines, knowing the operator's fist, would detect an impostor. Also, the operator must be watched lest he slip in a prearranged code warning that means "This stuff is phony; they're making me send it."

SPIES, especially in peacetime, frequently work in several rings, all members of which usually are known as spies only to the leader. He reports, usually through a middle man, to an embassy official of the power for whom the spies work. With the Russians this is usually a secretary, though the military, naval and air attachés may have their own rings working independently. So, when CIC spots a single spy, unless he is doing great harm, it does not grab him forthwith, but watches him, to identify his contacts. Then it watches them and all *their* contacts. Only when it has followed up every thread of clue does CIC snip off the entire skein—agents, leaders, master spies.

That is the ideal in counterespionage. The Corps has attained it, not infrequently by penetrating a ring with an agent or informant of its own, like one youngish Italian-American. He vol-

unteered to penetrate a ring suspected of sending the Japanese information about our build-up in Australia for the start of MacArthur's "return." The ring's headquarters was reported to be in an Italian dive in Melbourne, and its only known member was the proprietor. If he alone were arrested, the others would scatter, to resume operating from a hideout. So the agent disappeared into Little Italy. After two weeks' silence his commander scouted the vicinity of the pub. Outside it he saw his agent lounging in dirty uniform, unshaven, reeking of stale wine.

"Are you a soldier," the officer demanded loudly, "or are you a drunken bum?"

"Who'n hell wants to know?" sneered the American, and lurched through the door.

The officer roared after him: "I'll bring the MPs and get you, you deserter!"

The scene ended the Italians' suspicions of the American's story of having forsaken our army because he admired Mussolini. Soon he was reporting their acts, plans, and members. All were rounded. The agent got lieutenant's bars and a decoration to cure a stomach soured by much unaccustomed red wine.

ANOTHER special rule of counterintelligence is that a captured spy is much more valuable alive than dead. Although he is supposed not to know other enemy agents, he often does; and he can tell you how, where, and by whom he was trained and by whom and whence sent on what mission. Once an intelligent captive is persuaded to talk, he can be kept on ice to help you doublecheck new information from additional prisoners, or other sources.

In North Africa we caught two Arab spies. General Patton ordered both shot: "Immediately—I mean immediately!" One was shot immediately, but the other was spirited off to the British, who got worthwhile information from him.

We learned from that experience. In the Battle of the Bulge we captured seventeen Germans in U. S. uniforms, spying behind our lines. Sixteen were pumped dry of the little they knew, then tried and shot. The seventeenth was so helpful otherwise that we kept him on tap for six months. Finally, he too was court-martialed, found guilty and, according to the laws of war, "shot to death by musketry."

The Corps also tracks down saboteurs. It protects the Army's fortifications and factories against the infiltration of workers who plan, as and when ordered, to ruin with emery dust, to burn with incendiary devices resembling fountain pens, or to use explosives ingeniously concealed in varied forms of plastic the defenses and machines that guard us against the awful onslaught of a future war.

Early in MacArthur's comeback a CIC agent captured under fire a Japanese document that revealed unexpected truths about enemy strength and weakness in the Admiralty Islands. The paper was translated on the spot by a Nisei agent and the information changed the General's plan and enabled him to win one of his first brilliant campaigns. Our losses in the war in the West, from North Africa onward, were held down by capture by CIC "tag pickers" of maps showing enemy minefields. We captured a complete enemy order of battle in Sicily.

AS THE foregoing indicates, although CIC's mission does not include espionage, the Corps turns in valuable positive intelligence, sometimes more intelligence when there is less secrecy. This is because CIC must lean heavily upon volunteer informants, who can neither volunteer nor inform if they have never heard of the Corps or its mission. The Corps needs the reports and tips on disloyalty, subversion, espionage, that all ranks of the Army can and will bring to it, once they are told what to bring, and to whom.

CIC needs also the tips that come from millions of civilians—even children—be they Americans or friends of freedom everywhere, once they have the same information.

Yet the Corps does not bare its inner workings to the enemy's eager eyes. It may use secret hideaways and rendezvous for especially ticklish business. Not all agents wear the uniform, or even a CIC armband.

Informants warned the Corps that the Communists would invade South Korea. Informants come today to the CIC offices maintained openly and plainly labelled in Germany and Japan. For instance, they tell helpful true stories of contacts or conditions behind the Iron Curtain. From these friends of freedom—weeding out an occasional "visiting spy"—CIC gathers priceless information for the not-so-cold war it wages to defend the life of America and of freedom on this earth.

SURVIVAL LIES IN TRAINING

(Continued from Page 21)
start doubting their own country.

By this time the Communists will have selected the men they think are really falling for their line. These men they take aside for an advanced Communist course with lectures about the theories of Marx, Engels, Lenin and Stalin. They will say all this stuff is above the head of the average prisoner and this appeals to the men they have picked.

Then they dream up some idea and try to push it over. In Korea it was about germ warfare. It's very important to them to get the men to participate in the program by signing petitions, making voice recordings, and writing articles. They try to make the men do something, no matter how small. Then they hold that over their heads, telling them they will be punished for it when they get home. Once a man does that small favor for them, they've got him where they want him.

In the cases of some men in Korea, the Communists tried to force them to co-operate by using threats of punishment or death. These cases were very rare because as a rule they don't have to force a man; there were more than enough who willingly co-operated with them.

All the while they hammer on unemployment and racial segregation in the United States, that soldiers are the underdogs of the war, and that there are men sitting back in the United States getting rich and fat off the war.

During most of their lectures, they will bring up incidents from American history and politics. Usually the Communist instructors are much better educated on the facts than the average [American] soldier and it is very possible for them to twist the facts around to meet their own needs.

It is right at this point where we can stop them. If our soldiers are taught American history and politics and about how the economic system works in the United States, they will be able to argue against the lies the Communists tell them. The Army can do some of this, but not all. It's mostly up to the soldier's parents and his school and church before he gets into the Army.

I remember one line the Communists were very successful with. They

kept throwing up the fact that the American government had taken shiploads of potatoes and dumped them in the ocean. Their argument was that the government should have taken these potatoes and sold them to poor people at low prices. A lot of men never knew that the reason for dumping the potatoes was to save the farmers who grew them. It was very easy for the Chinese to begin converting men on this point alone.

After a while they start criticism meetings. At first you are supposed to criticize yourself. Later they insist that you criticize or inform on other men. Gradually they try to set men against one another. They tell you that a good Communist informs on everybody. These criticism meetings can get a lot of rats started.

In Korea there were some well-educated men in my POW company. Some of them went with the Communists, others resisted them. The Chinks knew that the educated men were in the way of the indoctrination program, and those who wouldn't work with them were threatened into keeping their mouths shut. Education in itself didn't seem to have too much to do with whether a man turned progressive or reactionary. We had educated men and illiterates on both sides. But pride in themselves, and their country, or stubbornness in holding to their ideas, or just plain hate for the enemy kept most of the men straight that I knew.

In our camps there were some men who were ready to swing over to the Chinks even before the indoctrination program was really rolling. Back in the States and in the Army these men were brown-nosers, bullies and show-offs. All the Chinks had to do in Korea was give them a chance to show their true colors.

On November 6, 1954, at Camp Gordon, the Army awarded me the Commendation Ribbon for the way I acted in the prison camps. I would have preferred to have won my decoration on the battlefield but I bring it up because the man who wrote the citation summed up how to resist the Communists better than I can. This is what he wrote; I admit it makes me very proud:

Sergeant Lloyd C. Pate, Infantry, United States Army, distinguished himself by meritorious service while a prisoner of war in North Korea. . . . He organized groups of fellow prisoners to disrupt attempts at Communist indoctrination and harass their instructors. Each time the groups were disbanded because of informants, Sergeant Pate formed other resistance groups.

He also personally and openly voiced his true opinions, punished confirmed informers and in other ways obstructed the Communist indoctrination program. In spite of repeated severe punishment, he steadfastly defied all attempts at indoctrination and encouraged fellow prisoners of war to resist.

By his courageous example and leadership, he raised the morale of fellow prisoners, stiffened their resistance and contributed in great measure to the failure of the Communist program to convert prisoners of war to communism. Sergeant Pate's outstanding devotion to duty reflects credit upon himself and the military service.

SOME men in the prison camps thought that by co-operating with the Communists they could improve their food and living conditions to a great extent, but they were wrong. The progressives in Korea sometimes got a few favors and a little better food, but nothing to make it worth while. The other prisoners could have got the same food if they'd stuck together.

I remember several times in the camps our food dropped way below average, and average was pretty bad. A large group of the prisoners got together and refused to eat the food or listen to the Communist lectures. The food immediately improved. This didn't happen just once or twice, but a number of times.

THE most important thing the Army can teach its soldiers about captivity is that they are stronger than the enemy if they stick together. The Chinks knew this and they were afraid of it. That's why they tried to set us against each other and it is why they backed down when we refused to eat their slop or listen to their lies.

From experience as a POW, I know that if soldiers stay together in every way, take care of their sick and weak, buck each other up when the going gets rough, and resist the enemy in every way, he won't be able to brainwash or convert any one of them. He'll be sick and tired of prisoners who act that way and he'll want to get the war over sooner to get rid of them.

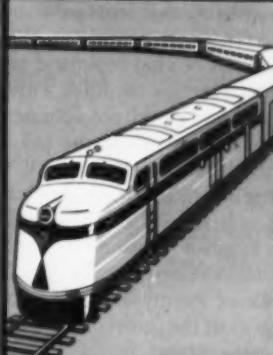
Not too long ago President Eisen-

The Best Buy-- BUY TRAIN!



The **RAILROADS** of the United States

*Special discounts
for military travel
...reduced fares
when you're on furlough.
Ask about Family Fares*



hower issued a new code of conduct for prisoners of war. I agree with every word in it especially the part about not telling the enemy a damn thing except your name, age, rank and serial number. And one section in the code summed up how a man should feel:

If I am captured I will continue to resist by all means available. I will make every effort to escape and aid others to escape. I will accept neither parole nor special favors from the enemy.

In the code, the President also said:

I will never forget that I am an American fighting man, responsible for my actions, and dedicated to the principles which made my country free. I will trust in my God and in the United States of America.

WE didn't know these words when we were in Korea but many of us had that thought in mind all during our time in the prison camps. I know that at any time we wouldn't have been surprised to see Patton tanks come rolling over the hills after the Chinks. This thought helped us keep going.

The soldier who allows himself to be indoctrinated not only lets down his country, but he doesn't even win any respect from the enemy. I was asked by several Chinese what had happened to the diehard American soldier of World War II. After seeing the way POW's were denying their country, the Chinks said they were ashamed to admit they had fought alongside the Americans in that war.

They had no use for the reactionaries—that's for sure. We meant trouble for them. But they never had as much contempt for us as they had for the men who worked with them.

A MAN who is captured should remember he is still capable of fighting back even though he is a prisoner and no longer has his weapons. No matter how small a thing may seem, if he will go ahead and do it against the enemy, it may develop into something big. He must always be on the lookout for the chance to kill or harass the enemy. When the opportunity comes, he should be able and ready to make the most of it.

If we train our recruits in this way, if we teach them about old weapons like the bayonet and how to handle all the new ones, if we give the men training soldiers more authority, if we make the discipline strict and fair, the next time we need an Army we'll have fewer men taken prisoner and these will be men we can be proud of.

Construction Power Is Combat Power

(Continued from Page 17)

dispersed units having a high degree of mobility so as to be able to concentrate for decisive action and then disperse again for safety. The heightened mobility of the Army required by these concepts, in turn, requires the use of substantially greater numbers of ground vehicles by combat elements and increased dependence by the Army upon air movement of troops and supplies. As vehicle density increases within the field army so also will requirements for the roads and bridges necessary to maintain tactical mobility. At the same time, expanded use of aircraft for moving and supporting combat elements will generate requirements for the development of landing areas in ever increasing numbers and at ever increasing speed. Inevitably these trends point toward augmented engineer support for field armies.

In addition to achieving greater tactical mobility, our future field commanders must keep their logistical facilities dispersed so as to minimize the likelihood of sustaining supply losses which could cripple combat operations. This requirement, coupled with the necessity for expanding our supply activities to sustain the mobility of combat elements, means that we must have more and better air and land routes of communications for logistical as well as tactical purposes. At the same time, the recognized vulnerability of our military installations to serious damage from high yield enemy weapons requires that we maintain an increased capability for restoring or replacing critical ports, depots, and other key facilities which might be knocked out by enemy action. Moreover, we must be prepared to construct in combat areas substantial numbers of protective works to insure against the loss of vital command posts and communications facilities without which the Army could not operate effectively. These requirements call for more construction power—not less!

There is another aspect of nuclear war that will have a profound effect upon the engineer mission. Just as our forces must develop superior mobility in the face of enemy atomic capabilities so also must the forces of the enemy if they are to avoid being destroyed by our atomic weapons. From our standpoint, therefore, it is just as im-

portant for us to hinder enemy mobility and force him into untimely concentrations as it is to maintain mobility and achieve timely dispersion of our own forces. One of the principal ways to disrupt enemy operations is to use engineer troops in their classic secondary role of hindering the advance of the enemy. By judicious use of minefields, demolitions and other obstacles, enemy movements can be retarded and channeled to present lucrative targets for our nuclear weapons. In the past this type of action by our engineers has been important; in the future it may well be critical to our success in battle. In any event, it is certain to require the employment of more of our available engineer means than ever before.

In addition to the impact of nuclear weapons, other developments are placing increased demands upon our military construction capabilities. During World War II, our Army engineers were able to provide operating airfields for fighter aircraft in from one to 30 days. Even with the advent of the B-29, four battalions of engineers on Saipan were able to meet minimum operating requirements in 114 days. Now, however, there is hardly an aircraft in the Air Force arsenal that does not require an airfield built to at least B-29 standards, and many require much more; the day when a tactical airfield could be built in 36 hours has long since faded into history. Even Army helicopters are generating construction problems. In the early days of helicopters, prepared surfaces were never thought necessary for landing or take-off. However, new and heavier models have developed serious maintenance problems when consistently operated from other than prepared pads of heavy duty pavement. These are by no means the only developments in military hardware that threaten to overtax available construction resources, but they do indicate the trend toward increased construction requirements.

EFFORTS are, of course, being made to offset these increased construction loads. For example, the Army is continuing research for combat vehicles having increased cross-country mobility and, almost certainly, will eventually achieve some measure of success along these lines. However, recent field ex-

**TEAMED
FOR
LONG AND
SHORT
COMBAT
AIRLIFT
ANYWHERE!**

Fairchild C-123 makes final delivery
of men and supplies
to scattered USAF global outposts

Teamwork between Fairchild C-123's and the USAF's long-range transports now makes our world-wide supply lines more flexible and dependable.

After the giant four engine transports deliver the goods to world-wide depots and advance supply areas, the C-123 takes over the vital supply relay to complete the short hops to our far-flung military

installations . . . forging the final link in our global logistics chain by putting men and supplies wherever they're needed, *anywhere in the free world*.

The Fairchild C-123 is virtually unrestricted by conditions of terrain or climate . . . airlifting troops and equipment to many combat or disaster areas inaccessible or impractical to reach by other means of transport.

...WHERE THE FUTURE IS MEASURED
IN LIGHT-YEARS!



FAIRCHILD
AIRCRAFT DIVISION • HAGERSTOWN, MARYLAND

A Division of Fairchild Engine and Airplane Corporation

ercises have demonstrated rather clearly that the new vehicles available to us at present have less, rather than more, cross-country mobility than their World War II counterparts. Moreover, the improved capabilities of our potential enemies in the techniques of mine warfare, coupled with the knowledge that cross-country operations often detract from our ability to conceal our actions from enemy aerial photography, raise many valid questions as to whether improved cross-country maneuverability is, in fact, an answer to our mobility problem.

Similarly, it is often argued that increased air transportability and the resultant placing of maximum reliance upon aircraft for tactical movement of Army combat units and supplies will go far toward reducing requirements for construction on the ground. While this argument might have some validity if we had transport aircraft capable of operating regularly from unprepared landing areas, it is reduced to absurdity when, as a matter of cold practical fact, today's transport aircraft are even more demanding than those of World War II in their requirements for the runways and other operational facilities needed to assure all-weather operation. Despite experiments with vertical take-off and other aircraft of unusual design there are no developments presently in sight that point toward anything but increasing construction requirements to support air operations. If we are to be realistic, therefore, we must face up to the fact that for the foreseeable future we will be confronted with the necessity for more, rather than less, construction support of combat operations in the field.

In the face of a national shortage of engineers and a trend toward increased construction support requirements for our armed forces, it would be logical to expect that there would be a concerted effort to develop means for improving the capabilities of engineer elements. Such efforts are in fact being made and in certain areas give promise of fruitful results. For example, in December 1955 the Secretary of Defense ordered abolishment of the SCARWAF category of engineer troops and returned the aviation engineers and their mission to the Army. This action by the Secretary of Defense was taken not only to eliminate costly duplications in time of peace but, more importantly, to minimize competition for critical construction resources in time of emergency

and provide greatly increased flexibility in the use of available construction power in wartime theaters of operations.

Progress is also being made in other areas. For example, our engineer troops are being equipped with bigger and better items of earthmoving equipment; new bridging equipment is providing faster and more effective means for crossing streams and other obstacles; flexible pipelines are making it possible to deliver petroleum to forward combat elements more rapidly than ever before. All of these steps, representing positive actions taken to increase the effectiveness of construction power in war, are encouraging. However, concurrent with these actions, there are developing within the Army certain doctrinal trends which could, if carried into combat, undo much of the good accomplished by these positive improvements.

IN the successful exploitation of construction power in World War II, there were three principal prerequisites to effective employment of the engineer component of the Army combat team: first, full participation by the engineer in all operational and logistical planning; second, centralized control and direction over assigned engineer forces; third, maintenance of the integrity of the engineer mission. These concepts, which proved so necessary in conserving scarce engineer resources during World War II and the Korean conflict, will be even more important in the future. Despite this, it is alarming to find that there is currently a tendency within the Army to ignore these tried and true concepts in developing doctrine for the future.

Trend: Subordination of engineers in planning and operations

Today's sporadic trend toward exclusion of the engineer from operational planning has produced a number of episodes in field exercises which could have been disastrous in actual combat operations. One recent maneuver incident, although never officially confirmed, is indicative of the inevitable end result of such a policy. In this case, the commander of an Army unit made up of the combined arms happened to encounter his staff engineer in the headquarters area a few days before a planned attack. When he casually mentioned his plan to attack down a certain road net he was sur-

prised to have his engineer reply that the bridges on that route would not support the combat vehicles to be used. Upon further questioning, the commander learned that the engineer, who was assigned to G4 and thus did not have access to the commander or G3, had furnished data on bridge capacities to the G4 some days before but that these data, through inadvertence or improper interpretation, had not been considered in planning the operation. Moreover, the engineer had not been brought in on the planning and thus had been unable to undertake, in advance, the preparatory measures necessary to permit the Army unit to move over the proposed route—or any other route. While this projected example may seem extreme, it is not by any means an exaggeration of what can happen when a commander subordinates his engineer wholly to a general staff section having responsibility for only one phase of the operation. If this pattern of organization is adopted on a wide scale for the future (and there are many who think it should be) it could cost us many battles if not an entire war.

Trend: Dissipation of engineer resources

Another disturbing trend which is currently manifesting itself in tentative Army doctrine points toward dissipation of engineer resources by a policy which parcels out engineer units to subordinate commands and leaves commanders at higher echelons with few if any engineer means under their direct control. The ostensible purpose of this doctrine is to make each small combat element capable of independent action by giving to it a little of each of the combat resources available to the Army as a whole. Laudable as the objective of this doctrine may be, the effect is much the same as if the conventional artillery of a division were parcelled out on the basis of one gun section per infantry company. Just as such a dissipation of conventional artillery pieces would nullify the potential firepower of the army, so also would a parallel dissipation of engineer resources nullify its potential construction power. Since victory in war is achieved by a combination of firepower and mobility and since the latter depends largely upon the effective exploitation of available construction power, dissipation of either firepower or construction power would appear



THE BIG STORY

Less than two million days have passed since man's first crude attempt to correlate his thinking and his knowledge with a new science of symbols and hieroglyphics.

And communication is still one of our most undeveloped sciences.

Today, something of great importance is happening at Martin in the technology of communication. It is a new method of harnessing and efficiently utilizing engineering mindpower for the solution of pre-

viously impossible design and development problems.

This new operational concept now holds the key to countless closed doors beyond which lie the "impossible" achievements of tomorrow.

Already the Martin concept is revising the calendar and the cost on top-rated projects in the most advanced areas of flight systems development. And the next frontier is space itself.

It is a big story.

Come to Martin if you are interested.

MARTIN
BALTIMORE

to be military suicide. For nuclear war a policy of dividing and spreading artillery pieces can, perhaps, be justified on the basis that with atomic shells we have the ability to achieve mass firepower with a single weapon and thus are not, in fact, dissipating our artillery resources. However, no such argument can be seriously advanced with respect to engineer resources until the improbable day dawns when we can exchange our conventional bulldozers for nuclear powered tractors having capacities in the megaton range. Yet, while our professional military men would never advocate a policy of shrinking our capability to lay down mass artillery fires against the forces of the enemy, there are some who seemingly would cancel out our ability to mass our foreseeable construction resources against the obstacles of nature which must be overcome before the enemy can be engaged. This, too, could cost us battles and even a war.

Trend: Fragmentation of engineer mission

The third trend which is evident in the current evolution of Army doctrine is at least as serious as the other two. This is fragmentation of the engineer mission. The engineer mission involves a battle against nature within the framework of the over all battle against the enemy. Because the engineers' battle frequently is out of phase with the main action, with respect to both time and place, engineer operations must be conducted on an independent, or quasi-independent basis. This characteristic of the engineer mission, in turn, requires that engineer forces be capable of sustained action with a minimum of dependence upon other combat and support elements of the Army.

In the past, this capability for independent action has been achieved by retaining under engineer control substantially all the resources necessary to accomplish the engineer mission—construction personnel, equipment, and supplies. Now, however, there is a tendency on the part of Army planners to develop organizational doctrine on the basis of functions rather than missions. In the case of engineer organization, this functional concept separates engineer supply and maintenance and, sometimes, other engineer activities such as mapping, from engineer construction functions and places each under separate command. The effect of such a separation is to charge the en-

gineer construction commander with responsibility for the execution of missions without giving him authority over functions which are essential to the execution of those missions.

In support of this fragmentation policy it is frequently argued that the infantry commander must depend upon ordnance, quartermaster, and other services for the supply and maintenance support he needs; therefore why cannot the construction commander depend upon other service elements for the supplies and equipment needed to accomplish his mission? The answer, of course, is that he can and does. However, there is one important difference between the engineer supply and maintenance function and similar functions of the Ordnance and Quartermaster Corps. Engineer supplies and engineer maintenance are used predominantly in the performance of engineer missions, whereas the Ordnance and Quartermaster Corps provide equipment and supplies primarily to the combat arms including engineers.

Moreover, the engineer at any given echelon of command, is responsible for conducting operations which, as pointed out before, are both sustained and independent in nature. Within the field army, for example, the responsibilities of the army engineer can be likened to those of a division commander. He must be able to close with and defeat the forces of nature just as the division must close with and defeat the forces of the enemy. Consequently the army engineer must have control over those supply and maintenance activities which are most intimately related to his mission to much the same degree as the division commander has control over the supply and maintenance activities which are vital to successful accomplishment of the division's mission. Both can rely upon support elements of higher echelons. Neither can afford to rely upon parallel echelons for furnishing support which is integral to accomplishment of the assigned mission.

No responsible commander has yet been convinced that a division should be shorn of the supply and maintenance functions most intimately linked with its success in battle. Yet there are those who seriously propose that the engineer should be divested of his control over those supply and maintenance functions upon which successful accomplishment of the engineer mission depends. It can only be hoped that these commanders will recognize in the

future, as they have in the past, that such fragmentation of construction power can only lead to reduced combat power on the field of battle. In the face of the almost overwhelming manpower resources of our potential enemies, it would certainly appear foolhardy for us to dissipate the one key advantage that we still retain—superior technology. Yet if we divide and dilute our construction resources we most certainly will be dissipating a large and crucial element of the technological strength which is our keystone to victory in war.

Construction power is an essential element of combat power

In the future, as in the past, victory will be achieved by the commander who makes the most effective use of firepower, mobility and shock action on the battlefield. Since at any given point in time firepower and the capability of the command for shock action are fixed to a considerable extent by tables of organization and equipment, supply levels, and similar factors over which the commander has little or no control, it follows that mobility is the one real variable among these three elements of combat power. Stated differently, any commander who could achieve 100 percent mobility would have little difficulty in developing the full combat power of the forces available to him; conversely, with no mobility the combat potential of his force would remain virtually untapped. In the future the success of field commanders in achieving mobility is going to depend increasingly upon the effectiveness with which they exploit their engineer resources in overcoming the obstacles imposed by weather and terrain. Like the traffic on our national highways, our military operations could grind to a halt if we do not make provision for timely and effective application of construction power to problems of mobility in the field. New weapons and new techniques in warfare are creating new demands for construction which will strain our engineer resources to the limit. It is imperative, therefore, in developing doctrine for the future that we recognize construction power as an essential and integral element of combat power and avoid any action which would fragment, dissipate, or otherwise detract from its effective employment in furtherance of the overall mission of victory in war.

Cessna T-37 designed for Jet Training

To meet jet age demands, the U. S. Air Force requires a jet trainer that makes it easy for cadet-pilots to master first line combat airplanes.

The Cessna developed T-37 introduces the cadet to all combat jet airplane characteristics while training on this safe, easy-to-fly jet trainer.

It is designed to provide the Air Force with a jet trainer that can be operated at substantial savings and cover the most important and longest phase of the cadet-pilot's jet training.

It is a privilege for us here at Cessna to team with the Air Force in its forward-thinking plans for the jet age. CESSNA AIRCRAFT COMPANY, Wichita, Kans.



"Air Force T-37 . . . You are cleared for take-off"



Balloon Ride

Over the Circus

LIEUTENANT COLONEL DANIEL T. CHAPMAN

Sometimes it seems like every day in an ARAACOM outfit is like the day Ringling Brothers comes to town, but this outfit, literally resting on its loaded arms, is making progress in meeting the challenges of its vital mission

Is the Antiaircraft Artillery living high on the hog these days? Comments to this effect are often heard within military circles. An AA commander receives flattering attention from service people and civilian volunteer groups, who eagerly offer assistance to bolster morale. Groups of visitors, sometimes more than he likes, visit his site to provide helpful advice and lectures of encouragement. When there is a shortage of men, especially important specialists, vast activity takes place in higher headquarters and neighboring installations. Usually the somewhat astonished commander finds his unit filled up to strength and the predicted disaster averted, or at least postponed.

The reason for all the attention is, of course, apparent. If there is an Army element resting on its loaded arms in the continental United States, we're it. We alone are ready to shoot at any hour of the day or night, now. The vital nature of our mission is obvious

not only to the military but to the vast majority of the civilian population as well.

All this rather plush treatment is heady stuff to a branch that just a few years ago was restricted to occasional shoots in the wastes of the southwestern desert, and which was primarily occupied in "Keeping the art alive." Not all the bubbles in the champagne are sweet, however. The unit commander has his problems, as all unit commanders always have, despite all the attentions of his superiors and the hordes of well-wishers.

The practical, long-term application of antiaircraft defense is a back-breaking, tedious job with no breaks allowed or allowable. The officers and men must spend as much as a hundred hours plus on their sites, week in and week out. They can count on no periods of unbroken training, recreation, or even sleep. The appearance of an unknown aircraft will have every man

at his battle station within twenty minutes. The fact that the "unknown" may turn out to be an aerial Sunday driver in a private plane in no way lessens the requirement for instant action during the next alert. Granted, by Korea standards, these hours and requirements do not appear to be excessive, but when everyone else within sight is working regular hours the restriction becomes galling.

ON-SITE AA artillery participates in many air-defense training exercises. Their frequency sometimes seems to approach the danger point for over-training, though in general their importance and value is appreciated by the participating troops.

Scheduled training generally averages about forty-four hours per week. This leaves many hours during which the soldier is not actively training, but must remain on the site subject to immediate call. Boredom is the inevitable result, particularly among those soldiers with limited educational resources. As you well know, bored soldiers are capable of bizarre and exotic behavior. Occasional incident reports verify this capability to the horror of the unit commander.

The limited time away from the

Lieutenant Colonel Daniel T. Chapman, Artillery, was commander of the 752d AA Battalion, stationed at Grizzly Peak, California, when he wrote this article. He is now a student at the Armed Forces Staff College. Upon graduation from the University of California in 1940 he entered the Army and, during the Second World War, served in Hawaii and the ETO. He attended Leavenworth in 1952 and served in Korea with 2d Division artillery.

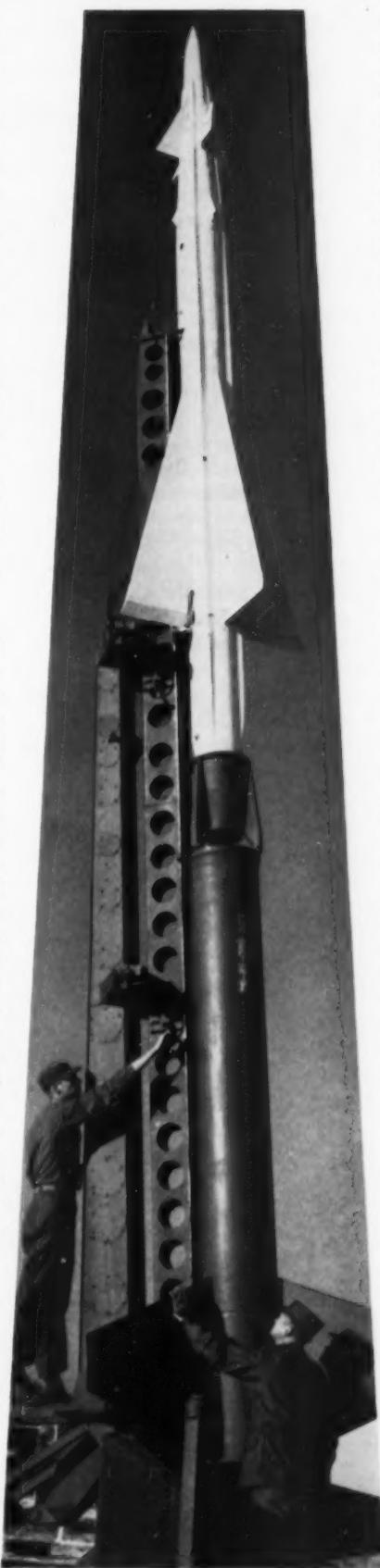
position affects even the most intelligent and conscientious officers and men. My battalion is located in the defenses of San Francisco, at one of the best-known recreational areas in the country. Within sight of it are amusement areas, parks, theaters, and diversions of a more lusty nature. One of my privates, a very bright lad, told me wistfully, "Sometimes I feel like I am suspended in a balloon over the biggest circus in the world." It is not surprising that occasionally their behavior is on the spirited side.

For the family man, be he private or field-grade officer, the problem is intensified. Unless his wife is dedicated to the point of saintliness, the frequent and unpredictable interruptions of family and social life result in friction, sometimes to a disabling degree. The widespread disposition of the units makes the development of mutual social support among the families difficult, and in some cases impossible.

I MENTIONED that a personnel shortage receives the prompt attention of higher headquarters and effective remedial action. It would be nice to report that the replacements march in, tidily tagged with the proper MOS and training to fill the slots in the T/O. Unfortunately, it ain't always so. Along with the privates received from the training centers march NCOs of the first three grades with years of experience in everything other than AA artillery. I can assure you that no more blank expressions can be donned than by an assemblage of senior sergeants of Military Police, Transportation Corps, Quartermaster Corps, Ordnance Corps, machine records units, or what have you, being welcomed into the AAA. Very obviously, such individuals feel as strangers in a foreign land, and although they may intellectually accept the importance of their new assignment, emotionally their reaction is one of some bewilderment, and occasionally bitterness.

If during the last several paragraphs I have given an impression of dire problems and impossible odds, such is not the case. The problems are serious, but certainly not insoluble. All can be alleviated, if not disposed of, by effective planning and command attention, leavened with the all-important sense of humor on the part of everyone concerned.

Not infrequently my day is brightened by the sight of one of my



former clerical-type noncommissioned officers firing his gun section with dash and proficiency. On occasion such a soldier has somewhat reluctantly admitted that the sight and sound of an efficient firing section is far more satisfying to him than the sound of a battery of typewriters and mimeograph machines. Usually, such a statement is preceded by some intensive schooling, both by the unit and by the soldier himself, with the training slanted toward building the soldier's confidence in his new specialty. Sometimes one of my senior recruits swims his way back against the stream to the haven of an 0800-to-1700 day, but more often they have come to refer to themselves as "artillerymen," with a heartening degree of pride and confidence.

My battalion, like all other gun battalions in the AA Command, fires three artillery service practices each year. These service practices, I believe, do more than any other one thing in developing artillerymen from soldiers with varied backgrounds. A well-fired course with a smoothly coordinated gun crew almost automatically insures the further development of the section into a team as permanent as the terms of enlistment allow.

THE subject of schools deserves more mention. Much of the refresher, and/or conversion, training can be accomplished by the individual and the unit, but antiaircraft artillery today is a complicated business. There are in my battalion many more vacuum tubes than I care to think about, and I sometimes wonder whether Dr. De Forest did us a favor with his memorable invention. These tubes, and the complex electronics equipment they serve, require technical maintenance and operation of a high order. Some of my career noncoms from other branches now find themselves exploring the mysteries of electronics at the Antiaircraft and Guided Missile School at Fort Bliss. Each such man is like money in the bank. In most cases, his devotion to the service and his stake in his career are such that he can be counted on for years of service in a field in which we need him most.

Even with the frequent firing and the continuous and, we trust, effective, training, there still exists that hundred hours plus per week on the site with the resultant monotony and the accessory ill of family disruption. This situation can be, and is, attack-



Replacements trained in complex AA assignments are not easily come by

ed on many fronts, and although no one can be expected to regard the results with unalloyed enthusiasm, we at least try to do the most with what we have.

ANY sport which can be played with in the necessarily limited area of an antiaircraft site is encouraged, and, if possible, equipment is supplied. One battery, taking a leaf from another's book, is planning a miniature golf course. Badminton, horseshoes, table tennis, billiards, darts, weight-lifting, punching bags, basketball, softball, volleyball, everything but curling on the ice (ah, sunny California!) has been or is being given a whirl. If a man wants to make model airplanes, we encourage him; if he wants to collect stamps, we encourage him; if he wants to read, we get him some books—anything he wants to do that is safe and not downright immoral we encourage him to do, so that the monotony of the long hours can be minimized. If possible, of course, constructive use of the extra hours is recommended; many men spend them profitably in credit-earning USAFI courses.

At each site we have a paid admission 16mm motion picture theater or a 35mm theater immediately near. We serve beer at each of our on-site exchanges during certain off-duty hours. We have periodic live shows through the courtesy of Special Services. As a result of arrangements made by the CG, Sixth Regional AA Command, we have weekly visits by the ladies of the local Red Cross, dispensing coffee and doughnuts together with a touch of feminine companionship for the fenced-in soldiery. We will never be

able to get the balloon down to the circus, but we can and do get a little of the circus to the men in the basket.

WHENEVER possible, and particularly in the case of NCOs of the first three grades, we encourage the decoration of quarters as desired by the individuals concerned. Some of the results would startle, if not permanently injure, an interior decorator, but they go a long way toward making the proud designer feel as though he has a home.

The family problem is harder to grasp and define. Some fine soldiers have come to the conclusion that this phase is so tough they have decided to leave the service. The great majority have made their own adjustments and continue to serve effectively. One soldier told my chaplain that if he didn't get off the site more, to be with his family, he was sure he would crack up. I asked the chaplain, who has been my most effective aide in searching out the sore spots in morale and developing counter measures, to visit the man's family and see what could be done. He did so, and during the course of the evening he attempted to explain to the young wife the importance of our mission and the demanding nature of an antiaircraft assignment. When he had finished, the girl said, "Oh, antiaircraft; is that what

he's in?" So now we are starting "family days" where I talk to the wives and children and attempt to explain the whys and wherefores of what we are doing, and how we are doing it, and why it takes so much time. After this, we show them where and how their men live, and stoke up the kids with whatever snacks we have available. So far, the results have been most rewarding.

Although it is a major project in arrangement and logistics, we have been able to have some parties for the officers and ladies of the battalion and thus to establish some measure of social graciousness despite our widespread places of residence. The response is good and the more parties we have, the greater is the enthusiasm for the next one.

PLEASE do not misunderstand me. These measures are not cure-alls for our difficulties. On a foggy day over the Golden Gate some of the problems can still assume awesome proportions. As always before, however, a sunny day arrives and we see that progress is being made. More important, any of us with the insight to appreciate it can look any man in uniform in the eye, with the sure knowledge that what we are about is at least as important as whatever he is doing, and almost certainly more challenging.

There are few breaks in the week-after-week grind of an AA defense assignment



Irons in the Fire

Signal Corps Tests Navigation System

A radiowave "grid" system that can provide a continuous, all-weather flight-position picture for helicopters, other aircraft, seagoing vessels and mobile ground units, is being tested by the Signal Corps at the Army Electronic Proving Ground in Arizona.

This "Decca Navigation System," developed in England during World War II, uses low-frequency radio signals in contrast to the high-frequency pattern used in conventional cross-country aircraft navigation. These signals surround a building or mountain like the atmosphere, and there are no electronic "shadows" or "blind spots." American rights are owned by the Pacific Division of Bendix Aviation Corporation.

This system transmits its low-frequency radio waves as a continuous chain from a main transmitter and its "slave" stations, spaced 70 to 100 miles apart. The radio waves form a precise grid pattern ranging from sea level to extreme altitude.

It enables helicopter pilots to keep a continuous cockpit "motion picture" flight log of their course while flying around skyscrapers, mountains or other obstacles.

The Army initiated the evaluation tests of the Decca system. Results will be used to determine the system's applicability to Army operations. Evaluation data also will be made available to the commercial airline industries, helicopter service industries, and marine shippers through the Department of Commerce.

Portable TV Transmitter and Receiver



Under the supervision of the Televisual Branch of the Army Signal Corps Engineering Laboratories, Radio Corporation of America has built an 8-pound handheld TV camera and 47-pound back-carried transmitter for use on the battlefield. It sends its pictures to a portable 10-inch receiver which can be mounted in a jeep or placed in a foxhole. The operator of the receiver can monitor pictures from five of these cameras, selecting the one to be relayed to higher headquarters or "piped" into a commercial TV system. The camera and transmitter also can be placed in unattended operation as a silent sentry on forward observation duty. The transmitter can send pictures continuously for two hours. The lightweight five-cell rechargeable silver-zinc battery can be replaced in two minutes.

Handy-Talkie

The newest in the line of light-weight radios produced by the Army Signal Corps is Handy-Talkie, a little brother of the Walkie-Talkie and others in the series of portable transmitters and receivers. It will be used by small units operating well forward.



Radiation Detection Device

A rugged little detector that tells at a glance how much deadly gamma radiation the body has absorbed, and resembling a stubby fountain pen, has been developed by Bendix Aviation Corporation for the Signal Corps Engineering Laboratories and is ready for mass production. Signal Corps engineers say the instrument is the best personal dosimeter developed for Army troops.

Known technically as Radiaometer IM-93, the fountain pen dosimeter records gamma radiation up to 600 roentgens. The roentgen is a measure of gamma-radiation absorption from such a source as the atomic or hydrogen bomb. A medically recognizable dosage is about 25 roentgens. Over 100 will produce first signs of radiation sickness, and usually 400 will kill 50 per cent of those exposed.

An easy-to-read scale reveals the total radiation the body has been exposed to over the time the dosimeter is carried. This provides a constant check on "gamma fever."

The new dosimeter is clipped in the pocket like a fountain pen. Unlike the others, it needs no delicate handling or special care. In tests it worked perfectly after being thrown twenty feet against a solid wall and dropped on a concrete floor. It also operates after immersion in water and at high altitudes. It is unaffected for all practical purposes by arctic cold or desert heat.

It can be stored indefinitely before use, giving it a marked advantage over the commonly used photographic badge dosimeters. In addition, after its original electric charge, the instrument can be used over and over again for years with infrequent recharge. The fountain pen dosimeter weighs just under two ounces, is about four and a half inches long and one half inch thick, and is easily carried in pocket or purse.

Once the dosimeter is charged, it can be read at any time. The user merely peers through a lens in one end, with a light source at the other, as he might look through a pint-sized telescope. He then reads the amount of exposure on a highly visible scale.



DEATH AND HUMOR

LIEUTENANT COLONEL ROBERT A. SCRUTON

It was the damnedest thing. When the Sergeant yelled, "Hey, you guys, this ain't no way to make a living!" the pinned-down company laughed and clobbered Ensheim

THEY tell the tale of the sergeant in the battle of the Argonne. When the time came for his platoon to leave its trench and advance through fire, the men quit on him, wouldn't budge. Striding up and down that trench, the sergeant employed both boot and vocabulary to no avail. The men, as men in combat sometimes will, just cowered, their spirit gone.

Suddenly the sergeant leapt to the parapet and bellowed: "Come on, you bastards! You want to live forever?" As one man, the platoon was out of that trench, followed the sergeant through whistling steel, and bayoneted the Germans off the objective.

An oft-told tale, this, of inspired leadership. Rather, inspired words of leadership. The sergeant somehow managed to break through fear-frozen brains to some inner consciousness which responded to the macabre humor of his words. "You want to live forever?" Considering the circumstances, I think it the funniest thing I've ever heard—and the most effective. A man's sense of the ridiculous is receptive, even when he may be about to die.

I wish I could have thought of similar words on the night of 15-16 March 1945. The situation required inspiration—something beyond my stock resources of leadership. Fortunately, someone—but that's getting ahead of the story.

As part of the final assault on the Siegfried Line in Seventh Army's sector, my rifle company was to make

a midnight attack on Ensheim, known to be occupied by a force of panzergrenadiers—tough troops. We had been in position since dusk, a good six hours before jump off. Ahead the land sloped gently to a stream; beyond the stream it rose steeply to a ridge. Beyond the ridge lay Ensheim. We were to cross the stream, knock out anything on the ridge, fight our way into the town, and secure it against counterattack. The timetable said this was to be done by 0500. We had five hours. My company was nearly full strength, had been bloodied in four successful actions, could be considered combat-wise. To use a timeworn phrase, morale was excellent as we occupied the jump-off positions. You can always tell this about combat troops: there's an air about them to be found nowhere else in the field army.

On the morning of 15 March I made an air reconnaissance of the attack routes. It looked tough. Germans were dug in on the ridge, had delaying positions near the stream. The area was brilliantly mined. Of the defenses of Ensheim itself, I could tell little. There was, as fiction writers say, an air of ominous quiet about it.

ALL possible information was committed to maps and a rude sandtable. Every last private was thoroughly briefed. In addition, I took each platoon aside, told it what to expect. I spoke frankly to the men, answered the frankest questions in the same spirit. It wasn't going to be easy, I told them; in my opinion, it would be tough. The Germans were defending the Fatherland, and would fight well. Moreover, it was a night attack, and night attacks are rough. The men must remember all they had learned about night actions. Once the attack started, they must keep moving, keep moving. Keep moving toward that ridge, that town. Just before midnight Seventh Army would begin a tremendous artillery bombardment. Much of it would fall on

the ridge, on Ensheim. The men must move in under it and get the Germans while they were still shocked. If they did we would be successful.

At the end of each briefing the platoons were quiet, thoughtful. The platoon leaders reported that the men were glad the Old Man had given them the picture. They liked to know the what and why of things. They were tense, but calm. They were ready.

SOMETIMES around 2200 a curious change came over the men. Perhaps it was the long wait in the jump-off positions. Perhaps it was the stillness of the night and the long thinking of what lay ahead. As I made my rounds of the platoons, I sensed unrest and fear. I could actually smell fear—a sharp, acrid stench. The men were sweating with fear.

Back in the CP I confided my impressions to the exec. He'd sensed it too. He looked at his watch, observed that we still had a couple of hours to go. "Maybe they'll calm down," he said.

I became extremely nervous myself. The night was cold, but an oily sweat soaked my underclothing. With great effort I spoke in a natural voice.

"Maybe they will." It was to be expected, I said, that men should be afraid before an attack.

Yes, the exec said, it was. I looked at him closely. A greasy sweat shone on his face. His hand shook as he sipped coffee from his canteen cup. The thing had got to him too.

"We're a fine pair!" I said, and we both laughed. The laughter helped ease the tension. It was then that I noticed Sergeant Whittington, the Weapons Platoon leader. He was sitting in shadow and I hadn't seen him when I came in. Whittington was up for a commission; a good man.

I said the first thing that came to mind: "The men are damned scared, Whittington, and so am I. Keep it under your hat."

Whit grinned. "Sure. We're all just guys, Cap'n." We fell to discussing the employment of his platoon in the attack and I forgot my own fears. Such are the blessings of responsibility.

WHEN I made another round at 2300 the stench of fear was still there, paralyzing, unnatural. I spoke quietly to the platoon leaders, but more than this I could not do. I could only hope that the excitement of the attack itself would dissipate the funk.

At 2330 the battalion commander's voice came over the radio in code: "You ready?"

Lieutenant Colonel Robert A. Scruton, USA, a frequent contributor, spent twenty-six years in the infantry and retired last year. He enjoys life from Biloxi, Mississippi, where he does some writing and plays much tennis. His latest contribution was "The Origins of the Bergenschultz-Schletterkume Method" (November 1955).

It was no time to tell him my troubles. "Yes, sir."

"Good luck!"

"Thanks!"

2345! Every gun in Seventh Army opened up. It was the most awesome sight I've ever seen or heard. The German lines literally exploded in the torrent of shell. We know now it caught them largely by surprise. But only largely, not totally.

As my company moved down that gentle slope toward the stream, trails of fire arched up from the German lines, like comets. Up, up, they went, and seemed to pause at their farthest reach. Then down they whined, screaming and crashing all over the slope.

The German Screaming Mimi rocket was not a particularly accurate missile, and its killing zone was not great. But it compensated for these deficiencies by its bloodcurdling sound. It was nothing less than terrifying. As one man, my company froze. Froze there on the slope, in the artificial moonlight, while the rockets crashed. Froze, and hugged the ground, and made mewling, helpless squeals. Nothing would make them move. To stay was death—and they knew it—but nothing would make them move.

MY first emotion was fury—blind fury at the frightening stupidity that would make men offer themselves to slaughter, like cattle. I ran madly around, shouting, cursing, kicking. Some officers and NCOs sufficiently aroused themselves to make similar efforts. It was no use. The company was going to die on that slope.

Then I too froze. A rocket wailed in, exploding itself and an unknown number of mines. I hit the ground, shivering. For minutes I lay there, useless as an officer. Then the croaks of the wounded penetrated my consciousness, brought back my responsibilities. I got up.

"Follow me!" I shouted, lamely but dramatically, and moved off toward the stream.

No one followed.

I went back among the company, dim forms on the ground. Sergeant Whittington was moving about, urging the men, shouting.

"Christ, you clunks," I heard him say, "this ain't no way to make a living!"

"Hey!" someone shouted. "You hear what Whit said?"

"No—what'd he say?"

"Said this ain't no way to make a living!"

SOMEONE laughed. "Christ, it sure ain't." More laughter, more repetition of what Whit had said. It was the damnedest thing. That slope was suddenly full of laughter and exploding rockets at the same time.

I won't go into the rest. The company got its spirit back and clobbered Ensheim. I wasn't there to see it—got a nice little wound near the ridge. For Sergeant Whittington it really was no way to make a living—got his head blown off at the stream.

The point to this? Must everything have a point? It's just a simple tale of combat, and weird, wonderful humor.

Chaotic Command

(Continued from Page 24)

were being developed. These plans, which were drawn up in the Air Ministry, covered both the manner in which the sites were to be constructed and their location. A belt of 64 main sites and 32 reserve sites, facing England and stretching from Cherbourg to Calais, was envisaged. The construction plans called for the building of storage and assembly facilities, a launching ramp at each site, and eight highly protected supply centers, each capable of holding a supply of 250 V-1's. By the end of September 1943 some 40,000 workers were at work.

On 21 October 1943 one battalion of the 155th Flak Regiment left for the Calais area to assist in the final preparation of sites. By November sufficient progress had been made in the construction of sites and in the training of units to warrant the estimate that firings against England could begin on 15 December. This estimate had to be changed because of heavy bombing attacks by the RAF and the U. S. Ninth Air Force on located sites, which began on 5 December, and because of last minute technical difficulties of the weapon. The first commitment was therefore postponed to early in January, and the modification and better camouflage of the sites were ordered.

THE training of Army units for the employment of the V-2 began at Peenemunde in July 1943. The first unit organized for this training was the 444th Training and Experimental Battery, which consisted largely of military personnel from Peenemunde. In August, Dornberger, who had been promoted to brigadier general two months earlier, drew up a draft organization, under which he was to command all V-2 troops in the field. His staff was to be similar to that of an artillery commander, while the troops were to consist of two mobile launching battalions and one fixed (bunker) battalion. General Dornberger also proposed that he be appointed Special Army Commissioner for V-2 matters, in the hope that he would then control all aspects of the V-2, from research and development to field commitment. These proposals were approved, and General Dornberger established his headquarters at

Schwerdt, on the Oder River. He organized his staff into a command group, a supply group, and an engineer group. He appointed deputies for development, procurement, storage, fuels, and operations. For a time it looked as though the men who had devoted thirteen years to the V-2 were going to carry it through to its final fruition. But the Armed Forces High Command and Nazi Party politics thought otherwise.

In the fall of 1943 the Armed Forces Operations Staff began to plan for the manner in which the V-weapons, now rapidly reaching a state of operational readiness, should be controlled in the field. On 1 December Hitler

In June 1944 a V-1 landed on the Guards Chapel at Wellington Barracks, London, only a short distance from Buckingham Palace, during divine service, killing 300

signed a directive which designated the LXV Corps for Special Employment as the headquarters responsible for the commitment of all long-range weapons against England. The Commander in Chief, West, was designated the immediate superior of the commanding general of LXV Corps, and was authorized to issue all necessary orders for the commitment of V-weapons in his area.

Since LXV Corps was to command both Army and Air Force units and use weapons developed by both services, a joint headquarters was organized, the details of which were worked out by the Organization Branch of the Army General Staff. The commander, the operations officer, and the supply officer were to come from the Army; the chief of staff and the intelligence officer from the Air Force.

Command of LXV Corps was given



ARMY

to Lieutenant General Erich Heinemann, a 62-year-old artilleryman who was considered specially qualified by his experience in devising tactical methods for handling new artillery weapons. Air Force Colonel Erich Walther was selected as chief of staff. Troops initially assigned to LXV Corps were the 155th Flak Regiment, all V-2 units already in the West, and a long-range-artillery unit.

HEADQUARTERS of LXV Corps moved to France shortly after its activation and established its command post at St. Germain, near the headquarters of Commander in Chief, West. During the first half of 1944 it primarily supervised the construction of V-1 launching sites, effecting many changes and modifications in the elaborate construction initially ordered by the Air Force's Technical Service. The total number of troops involved in V-1 action was roughly 10,000. The initial operational area was between the Belgian border, on the right, and the Seine River, on the left. The firing positions were located along the Channel coast, at distances of between 10 and 35 miles from the shore.

The estimate that V-1 firings could begin early in January had to be revised again after LXV Corps arrived in France and saw the true state of V-weapon affairs there. On 20 May 1944 LXV Corps finally reported that the V-1 was ready for action. The first combat V-1 was launched during the early morning of 13 June. LXV Corps controlled the firings through the 155th Flak Regiment.

LXV Corps at first had very little to do with the V-2. At the time the corps was activated, it was the intention of the Armed Forces Operations Staff to divide V-2 matters between a ZI command and a field command, the latter being under LXV Corps. At first General Dornberger hoped to unite both these commands in his own person. However, technical problems in the development of the V-2, especially an air-burst persistency, demanded so much of his time that he soon realized he could not hold down both positions. On 29 December 1943 an experienced artillery officer, Brigadier General Richard Metz, was assigned to LXV Corps to command V-2 units in the field.

General Metz brought to the V-2 field command a practicalness which General Dornberger lacked. The ef-

GERMAN MISSILE DEVELOPERS NOW IN U. S. SERVICE



DR. DORNBERGER



DR. VON BRAUN

Dr. Walter Dornberger (former Major General in the German Army) and Dr. Werner Von Braun were leaders in the development of German rockets and guided missiles. Dr. Dornberger is now associated with the Bell Aircraft Corp., and Dr. Von Braun is with the Army's Ballistic Missile Agency at Redstone Arsenal.

forts of the two were to have complemented each other, but instead there was considerable friction between them. This friction was noticed by an SS general named Hans Kammler, who as early as the spring of 1943 had begun to take a particular interest in the V-2. When, after the attempted assassination of Hitler on 20 July 1944, Himmler was appointed commander of the Home Army, SS General Kammler began to press him for authority to get V-2 operations under way. The next ten days witnessed almost utter confusion in the V-2 field-command set-up. At first LXV Corps' mission of controlling all V-weapons was reaffirmed, but by 1 September, after numerous messages between LXV Corps and the Armed Forces Operations Staff and a stormy meeting in Brussels between Generals Dornberger and Metz, Colonel Walther, and SS General Kammler, the latter emerged in command of all V-2 operations. Unified field control of all V-weapons, which had existed at least theoretically for almost a year, thus came to an end.

HIMMLER'S orders of 1 September to Kammler directed him to get the V-2 campaign going by 5 September. Kammler immediately improvised a headquarters at Brussels for the field commitment of V-2's and directed General Dornberger to bring up the missiles. The first V-2 in combat was launched against Paris on 8 September 1944, from an area ten miles south of Houffalize. In order to give Kammler a larger and better organized headquarters, the Army High Command, at Himmler's instance, issued instructions on 30 September for the creation of Division z. V. (Division for Re-

prisal). SS General Kammler was named division commander.

LXV Corps, which continued in charge of V-1 firings, was at Meschede near the Dutch-German border when, on 16 October, it reported that V-1 operations could soon be resumed from new launching sites in Holland and Germany. On 21 October 1944 the first Continental target, Brussels, was hit. On 19 October, LXV Corps was redesignated XXX Corps for Special Employment, and a week later General Heinemann was relieved of his command, to be followed by General Von Treskow (until 15 November) and General Kleffel, who stayed on until January 1945, when XXX Corps was relieved of its V-1 mission. Part of the corps staff was then used to organize the 5th Flak Division, which became the V-1 field command. This command lasted but a short time. It was not long before Kammler extended his powers to include control over V-1 operations, by having the Armed Forces Operations Staff direct the organization of Corps z. V.

THE V-weapon field command was now unified once more, under a Nazi Party man who, according to General Dornberger, had had a truly fantastic military career. He had never served a day as a soldier and had had no military training whatsoever. An order signed by the chief of the Armed Forces Operations Staff on 31 January stated that "targets for these [V-] weapons will be designated by the Armed Forces Operations Staff in accordance with the directions of Hitler." The order also designated the chain of command as Hitler-Armed Forces Operations Staff-SS General Kammler.

Kammler soon realized that nothing decisive could any longer be accomplished with V-weapons, and on 27 March he had himself appointed as Hitler's representative for the development and production of jet fighter aircraft. The last V-weapon to be fired in combat was a V-1 against Antwerp on 30 March 1945. On the same day, Himmler ordered the cessation of all V-weapon operations, and some V-weapon units had already been changed into replacement units. Many of these ended the war as infantry and were captured by the U. S. Ninth Army on 9 May 1945. SS General Kammler was last heard of as having escaped to Bavaria.

THE German V-weapon campaign failed primarily because Hitler until at least 1943 was convinced that the war could be won with conventional weapons. In military terminology, the effort expended on V-weapons, which included expenditures of an estimated \$3 billion, was committed piecemeal, on Hitler's orders. When the military situation became desperate and Hitler started grasping at anything that might stave off impending doom, it was too late to make up for time lost in the early 1940's.

On the basis of the V-weapons that were actually available to the Germans, the blame for the failure of the program must rest with the handling of the V-weapons at the higher levels of command. Immediate commanders and staff officers were not indoctrinated sufficiently in advance for them to organize, train, and control V-weapon units effectively. Higher commanders, such as the commanding generals of armies in the west, were almost totally ignorant of what V-weapon units were doing in their areas. Commander in Chief, West, was only superficially briefed on V weapons, although theoretically he controlled their commitment. On several occasions his orders to V weapon units and installations were countermanded by Hitler. The one instance when the V-2 was committed tactically, on 17 March 1945 against the Remagen bridgehead, remained a secret to Commander in Chief, West, until after the war. When the service rivalries, personality clashes, and the SS dabbling are added, one is surprised that the Germans accomplished what they did with V weapons. The only admirable parts of the V-weapon story are the fourteen year devotion of General Dornberger and his group to the development of the V2, the development of the V-1 by the Air Force technicians in less than two years' time, the work of the Commission for Long Range Firing, and the activities of LXV Corps while it controlled the field commitment of all V weapons.

German V weapons, particularly the V-2, rank with the atomic bomb among the most significant developments of World War II. The United States has apparently profited much from German V-weapon research and development. It is to be hoped that in any future V-weapon combat the mistakes of the Germans will not be repeated by us.

THE MONTH'S BOOKS

Irregular Soldier

GIDEON GOES TO WAR

By Leonard Mosley

Charles Scribner's Sons, 1956

256 Pages; Illustrated; Index; \$3.50

Reviewed by

COL. JAMES WARNER BELLAH

Ten years ago, in *Irregular Gentlemen*, I wrote this of General Orde C. Wingate: "Wingate wanted to fight in Burma. . . . Whether Wingate's limelight offended high level British officers, or whether his operating with the Americans led that high level thinking to believe he might betray the conservative staff policy of the Empire in exchange for personal laurels, I don't know. But throughout 1943-44, until he was killed, high level [in Delhi] usually treated him like a *chuprassi*. Every time he was sent for he was allowed to cool his heels on a bench outside the Presences until a sense of complete futility had galvanized his soul."

Leonard Mosley's biography is a definitive and unbiased study of the strange, off-beat character of Orde Charles Wingate against the carefully reconstructed backgrounds of his three off-beat campaigns: Palestine, Ethiopia and Burma. As a contributing document to the art of irregularly waged warfare, it has its place.

Wingate by temperament and inclination was at his best when his facilities for combat were second-rate, when the odds against success were long. He it was who instilled the doctrine of the offensive into Haganah, the Israeli undercover Army of Palestine in the late thirties. He it was who, with bottom-of-the-barrel troops made the bone-rotting march in 1941 from the Sudan to the Gojjam Escarpment, and by bluff and ingenuity (General Mareventano surrendered a 14,000-man Italian army to the remnants of Wingate's Gideon Force consisting of himself, his staff major, a platoon of the Sudan Defense Force, and a few hundred irregulars) placed the Emperor Haile Selassie back on his ancestral throne at Addis Ababa.

One is inclined to be skeptical of legendary figures in wartime, to tear them down to the basic principles of what mission did they accomplish and what was their consolidated casualty list.

I first met General Wingate early in 1944 south of Gwalior in the Jhansi Province maneuver area. Brig. Gen. (then Col.) Francis Brink commanded the U.S. ground force that was later to become

Merrill's Marauders. He and Col. Warren J. Clear were probably the most astute U.S. Army officers ever to operate in Asia in the intelligence function. When I asked his opinion of General Wingate, Colonel Brink said: "You know how British brass is taken with the idea of standing up and exhorting the troops? Well, it is basic, unwritten policy that General Wingate shall never be given the opportunity to speak to American soldiers in formation. He thumps the Bible too hard, he left thirty-three per cent casualties in Burma last year, and the British take a fairly dim view of him themselves. Besides, he usually wears a beard."

This book brings out the complete character dossier. This is Orde Charles Wingate: born to the Army in India—and a Woolwich-taught artillery officer—in childhood and early manhood his strongest influence was his mother's religious teaching, based on an almost literal interpretation of the Old Testament. Sent to Palestine in the late thirties as a staff captain on intelligence duty when his country's Foreign Office policy was pro-Arab (as it still is), he made contact with Haganah, trained Jewish formations personally, and personally led Haganah patrols in offensive action against the Arabs. He was returned to London with adverse efficiency reports and a recommendation that he never be ordered to serve in Palestine again. He was boarded, and took an adverse board decision (literally by taxicab to Buckingham Palace) to his King.

An ardent Zionist through his service in Palestine (his name was *not* Weingartner, as was rumored), his Scot's stubbornness and his Old Testament upbringing kept him one until his dying day, with his terminal ambition always to some day command the Israeli Army.

The seeking of power through high military rank now became an obsession. Disliked by high rank for an innate studied rudeness, slovenly habits of dress and downright insolence in official written reports, Wavell seems to have kept a personal faith in Wingate's military abilities. Wavell appointed him to the post of Chief Officer for Rebel Activities in the Sudan—and this appointment enabled him to organize Gideon Force for the operations in Ethiopia.

Keeping strictly to what would appear in an enemy intelligence study of General Wingate's record, the Ethiopian campaign cost him his entire transport of thirty thousand camels, and even though

he took the Emperor back to Addis Ababa and was successful in the field, he was ordered relieved, refused to comply, was forced to, was returned to Cairo, and reduced from his acting rank. He then cut his throat, but survived.

In London, civilian psychiatric recommendation swayed the authorities to keep him on the active list. Wavell, relieved himself now from Middle East Command and relegated to India, sent for him, and the 1943 Chindit raid resulted as did the combined British-American raid of 1944 (Operation Thursday).

What we really have, then, is what Francis Brink said with his eyes when he looked at me, rather than his words when he spoke. General Stilwell put it much more bluntly: "I want no part of General Wingate!"

Now the regular armies of all countries (as do other professions) collect queer ducks along with the vast run-of-the-mill conformists, and often the queer ducks are extremely valuable when conditions are right, or by their own non-conformist minds they manufacture their own conditions. Jackson was a queer duck. So was Patton. Von Schlieffen was an immolated stylobate. The Napoleon hat sideways is a symbol still of stark insanity.

Justification for queer-duckism in any army lies only in winning battles. Let the queer duck win and he becomes a legend.

By this test Wingate is justified. To this day the Israeli Army fights to his basically taught doctrine. Haile Selassie sits firmly on the ancestral throne of the Lion of Judah. And in Burma, at least Wingate fought back when no one else lifted a finger.

My British opposite number, Major Dunne, was killed on "Broadway." When I reported it to Wingate, he asked me to discharge both functions temporarily. I can still see him hunched to his situation map at Lalaghat (as I wrote it when memory was fresh), eating a raw onion like an apple. "Look at it—look at it! Every stray glider has landed around the Japanese flanks. They think it's a glider-borne harassing raid . . . and good God!—we've got a whole division across their supply lines!"

For what it was worth, we did have—but Wingate never saw the end. There was a quick pillar of flame against a far mountainside one evening a few days later, and the echo of his plane's roaring engines died into silence across the jungle. He wasn't cooling his heels outside the Presences that night. He had another appointment.

As an account of the field service of an extremely irregular British regular, the Mosley book has a place in libraries. As an added link in the chain of the snarled Burma Theater network, it is a contributing document to history. But as an epitaph to a dead man of whom tradi-

tionally nothing but good should be said, it leaves one with a sense of futility.

A Must on Missiles

GUIDED MISSILES IN WAR AND PEACE

By Major Nels A. Parson, Jr.
Harvard University Press, 1956
152 Pages; Illustrated; \$3.50

Reviewed by

COL. DONOVAN P. YEUELL, JR.

This book could hardly be more timely. Although a wide variety of rockets and guided missiles has been under development by both the free world and the Communist bloc since World War II, popular attention had been more absorbed by other things; suddenly the subject is spread all over the newspapers and the leading magazines.

The U. S. Army, Navy and Air Force all have experimented extensively with many missiles and have integrated some into their armament. The missiles made known publicly have been weapons of relatively short range; the longer-range birds are now in the limelight. Such secrecy has enshrouded the subject that it took Major Parson three years to get his book cleared for publication. There are many questions about guided missiles which this brief and compact volume does not answer; military security is a reason secondary only to the fact that there are yet no firm answers to many of the far-reaching implications of these new weapons. However, the author has managed to compress more answers into one small volume than this reviewer has been able to find in several dozen references. By and large Major Parson has produced the most useful work in public

print on a subject that may assume paramount importance to the survival of our nation.

Whether the United States is ahead of the U.S.S.R. in the missile race is a question. Well-informed cautions have been sounded by men like Senator Symington and Senator Jackson. Their fears that we lag behind the Soviets are reinforced by Trevor Gardner, who resigned in protest as Assistant Air Force Secretary over our IRBM and ICBM development; and by Dr. Walter Dornberger, former chief of the German V-2 missile project, who warns that the Soviets were working hard on rocket development before World War II, and that there has been an unbroken effort along these lines over since.

The seriousness with which the United States views the subject is evident from the high priority being given to developing guided missiles of the intercontinental and intermediate ranges—ICBM and IRBM. Although these latter devices are the ones currently in the public eye, the entire gamut of guided missiles is of concern not only to the professional military man, but also to the thoughtful citizen. Major Parson's book is useful for both types.

This meaty work is especially helpful for the busy times we live in, because its author reduces a highly complex topic to manageable proportions. He writes well. He knows his subject. He is refreshingly objective. He gives us a happy blend of the technical and the tactical aspects.

The book explains the principles of propulsion and guidance in terms simple enough for most of us to grasp. The details are sufficient for the type of general orientation that every officer and non-commissioned officer should have. The book could serve well as the basis for several sessions of a unit's officer and NCO school. The twenty-odd photographs and the numerous sketches are helpful, and the book is logically organized, going from a historical survey, through why and how they work, to a cogent exposition of how these weapons affect land, sea and air war. If one were to accept Major Parson's reasoning, there would be no basic interservice quarrel over the development or employment of guided missiles. He discusses the offensive and defensive aspects of guided missiles in terms that automatically would ascribe to each of the services its own comprehensive missile family of many types and a variety of ranges. He shows that the guided missile introduces so many new factors into warfare that there are plenty of missile problems to go around. Piloted aircraft are not supplanted by the new weapons, but integrated with them. The strategic power of naval forces is greatly expanded. The effectiveness of land forces is revolutionized. And the overall effect is to demand



ORDE CHARLES WINGATE
(in Burma in 1943)
"A queer duck"

unified control and integrated operations of the several armed forces.

Some sharp warnings can be drawn from the German experience, as well as from our own. Excessive competition and poorly organized research and development cost them dearly, as did Hitler's meddling in the production and emplacement of the V-2s (he insisted on fixed fortifications which the Allied air forces easily detected).

As to the current interest in the ICBM and the IRBM, the importance of the ballistic rocket lies in its long range and great speed, and in the lack of serious fuel problems once it rises above the thicker layers of atmosphere and takes up the path of the ballistic trajectory. Defense against this weapon poses far greater problems than developing the missile itself.

Major Parson closes his informative book with a chapter on "Missiles of Peace." Like most of us, he is seeking a glimmer of hope for civilization, but his flimsy optimism about world peace in no way detracts from the hardheaded usefulness of his book. Because there is nothing to compare with it, *Guided Missiles in War and Peace* is one of those few publications which should be really required reading by anyone and everyone concerned with our national security.

One of the oddest phenomena in this age of accelerated technology is the sluggish recognition by the great democracies of major advances in the weapons of war. For all our inventive genius and industrial magnificence, we Americans have been laggard in adapting nearly every major military innovation of the twentieth century. In World War I we followed the lead of other nations in the use of submarines, tanks, poison gas, and military aircraft. Between World Wars we were outpaced in airborne and amphibious developments, in the use of mechanized and armored forces, and in some key aspects of aerial and naval warfare.

The United States was not behind in one military development: the atomic and hydrogen warheads. But our unique claim to primacy in this achievement lasted a surprisingly short time. Possession of these weapons by the Communist bloc was ominous enough when the principal delivery means were piloted aircraft. But any degree of "atomic sufficiency" on the part of both sides demands extraordinary efforts by the United States in view of the more effective delivery systems promised by guided missiles. We dare not fall behind in this race. To be dilatory this time is a luxury which our survival cannot afford. Whatever the relative progress between ourselves and the Communists may be, this book can help the United States understand this pressing problem better.

Why the Frontal Assault?

OKINAWA: VICTORY IN THE PACIFIC

By Major Charles S. Nichols, Jr., USMC, and
Henry I. Shaw, Jr.
Government Printing Office, 1956
332 Pages; Illustrated; Maps; Index; \$5.50

Reviewed by

BRIG. GEN. EDWIN H. RANDLE

"Okinawa: Victory in the Pacific is the fifteenth in a series of operational monographs prepared by the Historical Branch, G-3 Division, Headquarters U. S. Marine Corps, designed to give the military student and casual reader an accurate and detailed account of the operations in which Marines participated during World War II." So affirms the first paragraph of the preface in a very long but precise sentence.

If one wishes to know in detail what happened on Okinawa, particularly concerning Marines, this is the book. The Army is not slighted, but emphasis, naturally, is on the Marines.

But neither this fine work, nor *Okinawa: The Last Battle* (the Army Account published in 1948) is the last word. Neither volume answers this question: Why, though every division present and amphibiously trained and experienced, with the greatest assemblage of naval strength in the Pacific up to

that time, including amphibious craft of all categories, and with the definite knowledge the Japanese had shifted all their forces from the south to reinforce the north, was the Tenth Army's operation a straight day-after-day frontal assault against the point of maximum strength?

At the close of the Leyte operation I was sent to Tenth Army headquarters on Oahu to plan the 77th Division's landings on Kerama Retto. At a courtesy call the army commander said: "I am being pressed to make secondary landings on the enemy's flanks and rear. I won't do it. I'm not going to have another Anzio." Of course, anyone can quickly figure for himself the difference between Anzio and landings on the Minatoga beaches after General Ushijima was forced completely to abandon the southern side of his all-around defense. To my personal knowledge, Generals Hodge and Geiger, as well as several division commanders, urged the landings.

This volume makes no critical comments on Tenth Army's tactics, yet it does provide a little information from which the careful reader may draw conclusions. The following quotation is from Chapter VIII, on page 142:

"The fear of an American landing at Minatoga dominated Thirty-second Army [Japanese] planning during early April; in fact, the army staff decided that 'such a landing could be executed relatively safely and easily, and, moreover, it would bring a prompt end to the fighting.' The Japanese officers felt that successful exploitation of a beachhead south of Suri would enable General Buckner's men to cut the Thirty-second Army in two and defeat it in detail."

That is a Japanese admission, made at the time, of how Tenth Army could have ended quickly its bloody battle of attrition.

Aside from the Anzio remark, the only reason ever advanced for Tenth Army's failure to direct its uncontested mobility and superior strength against the point of weakness, was that landings in the south could not be logically supported. What nonsense! The sea and the air were ours. Landing craft of all classes were present in numbers. The supplies were there. At Ormoc, on Leyte, the 77th Division landed squarely in the Japanese rear, with practically no logistical support for three days. Yet it quickly broke the back of Japanese resistance on that island. Then there is Inchon, to mention a more recent operation. But Tenth Army had plenty of successful current precedents besides the queer comparison with Anzio.

In a good battle account the most fascinating reading, for one who was there, illuminates the enemy. Captured documents, interrogations, and postwar interviews, skillfully pieced together, lift

THE MONTH'S REVIEWERS

Col. James Warner Bellah, Infantry-USAR, novelist, short-story and screen writer, served in the First World War as a fledgling flyer in the RCAF and in the Second in the U. S. Army with many months in Southeast Asia. His byline appeared many times in the *Infantry Journal* during the war years, too infrequently since.

Col. Donovan P. Yeuell, Jr., Artillery, now on duty in the Pentagon, has had a variety of assignments since he graduated from the USMA in 1940.

Brig. Gen. Edwin H. Randle, Infantry, retired, doesn't contribute often to these columns, but when he does he always has something worth saying. During the Second World War he served in both the North African and Pacific theaters.

Lt. Col. Edgar C. Wood, Armor, is an Army Aviator, now on duty in the Pentagon.

Brig. Gen. Donald Armstrong, Ordnance Corps, retired, is a contributing editor, staff confidant, and stalwart friend of the Association of the U. S. Army.

Col. Frederick Bernays Wiener, JAGC-USAR, is a Washington attorney, frequent contributor, and general counsel of the AUSA.

HACKSAW RIDGE ON OKINAWA

Unanswered question: Why the day-after-day frontal assault?

the fog of war and tear away all mystery. In retrospect, seeing clearly the tremendous discouragements and problems of the Japanese forces on Okinawa, one smiles at remembered tactical worries and thinks of General Grant at Fort Donelson. Henceforward, he said, he would remember that the enemy was just as worried as he was.

Chapter IV is splendid. It describes Japanese preparations, difficulties and dilemmas, taken from their own words. But Ushijima was a first-class general, the only one encountered by some American divisions. His defense of Okinawa might well be used as a model of its kind. With no control of sea or of air, using only terrain and fire power, he forced an army vastly superior in everything but generalship to pay a terrific price for each foot of ground, once contact was made.

Okinawa: Victory in the Pacific is a well-planned, excellently written, and carefully documented history. It is a handsome book. And there are maps, plenty of them.

A Change of Face

AIR POWER

By Asher Lee

Frederick A. Praeger, Inc., 1956

200 Pages; \$3.75

Reviewed by

LT. COL. EDGAR C. WOOD

The author develops a well-reasoned thesis in which he urges that more emphasis be placed on flexibility of air power. He believes that drastic changes such as long-range guided missiles, short-range ground-launched missiles, and vertical-takeoff aircraft will change the entire face of air power.

Mr. Lee discusses air power as it affects air, ground and naval forces. For the air force he says the balance between attack and defense in weapons development in any future war may be finely drawn. In attacks against the Soviet Union, the U. S. Strategic Air Command will not enjoy the milk-run freedom of the 1945 raids on Japan. Planning for aircraft to get through to the target must be flawless because the high cost of the atomic bomb allows only a small margin for failure. Contrary to the belief of a great number of officers of the air arm, Mr. Lee says that strategic



Lauren K. Soth

bombing in itself cannot win the war against the USSR.

As for the Navy, the author is not too kind. He says the future of the carrier is difficult to assess. He feels that the aircraft carrier is likely to remain indispensable as antisubmarine convoy escort for the next decade. It appears that aircraft carriers will be in less demand in the middle and late 1960s than they are now.

Mr. Lee is aware of the Army's need for close air support, and feels that atomic air power will play an important part in future land battles. It is his feeling that the aircraft used for close-support missions should be flown by pilots, if not members of the ground formation, that are well versed in the Army's needs. Spotting for atomic artillery must also be of the best quality. The author is most emphatic on the value and requirement for a cheap, low-flying, sturdy tankbuster which can release accurately aimed guided missiles against individual enemy tanks while flying at treetop height. He feels that France may take the lead in the tankbuster project.

Mr. Lee proposes that the services merge into one uniform particularly at Department of Defense level. This would tend to make senior military advisers forget their loyalties to tanks, ships and bombers. It is a crucial requirement of the next decade to pool military talent because war is so technical and the availability of first-rate leadership is too limited.

The author implies the air power upon which the West relies for its principal military strength is virtually blind, and so in war may be able to develop only a fraction of its potential. Lee attributes this condition to neglect of two elements he considers vital to air action: intelligence and reconnaissance.

In conclusion, Mr. Lee says that push-button war is not in sight, manned aircraft will long be a mainstay of air power, and the United States will be the source of the West's military air strength. He further states that the greatest danger to peace is the German's proven capability in missile rocketry. He believes that Germany will emerge the victor in the race for the ICBM.

Life of Orphaned Johnny Reb

JOHNNY GREEN OF THE ORPHAN BRIGADE:

The Journal of a Confederate Soldier

Edited by A. D. Kirwan

University of Kentucky Press, 1956

217 Pages; Illustrated; Index; \$3.50

Reviewed by

BRIG. GEN. DONALD ARMSTRONG

Maybe in 1956 Johnny can't read, but the Johnny of this Civil War journal could certainly write. Not that the rules of rhetoric or the principles of orthography guided his facile pen. He was not the master of a polished style, but he had an eye for the essential and a tongue-in-cheek sense of humor. His homespun journal makes a shambles of spelling and grammar but it tells a rewarding story

* Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books will appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service. See page 72 for order coupon and a complete listing of Selected Books for Military Readers.

THE BALKANS IN OUR TIME. By Robert Lee Wolff. Harvard University Press, 1956. 618 Pages; Index; \$8.00. A short, broad-brush survey of an area that is little known in this country, but has always been important in world affairs. For the student of international politics.

THE COLUMBIA. By Stewart H. Holbrook; Illustrated by Ernest Richardson. Rinehart & Company, 1956. 393 Pages; Index; \$5.00. The fiftieth in the Rivers of America series. The series is almost uniformly excellent; it offers regional history at its best. Holbrook writes readable and entertainingly of a river that offers more excitement and romance than most.

AN ECONOMIC SURVEY OF COMMUNIST CHINA. By Yuan-li Wu. Bookman Associates, 1956. 566 Pages; Index; \$12.50. An extensive and apparently unbiased survey that cannot quite stay clear of political questions. Indicates much research, difficult under Red Chinese security regulations. The conclusions are that much progress has been made, but at the sacrifice of individual liberties, that dependence on the USSR is complete, and that so far China's war potential cannot support an all-out conflict.

EXAKTA PHOTOGRAPHY. By Jacob Deschin. Camera Craft Publishing Company, 1955. 192 Pages; Illustrated; Index; \$4.95. A complete, understandable and well illustrated text for users of the VX Exakta and Exa cameras.

THE FRIENDLY FORCE. By Douglas Spettigue. Longmans, Green & Company, 1956. 134 Pages; Illustrated; \$3.00. A short history and description of the Royal Canadian Mounted Police, well sprinkled with anecdotes.

GOUSHA AMERICAN HIGHWAY ATLAS. Prepared by the H. M. Gousha Company. Simon & Schuster, 1956. 98 Pages; \$1.95. Slightly larger, and in some ways better than its better-known competitor, this huge (18 x 13½) volume will supplement the oil-company maps on any trip. It's difficult to understand why a city map of St. Cloud, Minn., and none for Norfolk, Va.

GUN DIGEST, 1956. Edited by John T. Amber. Follett Publishing Company, 1956. 268 Pages; Illustrated; \$2.50. The 1956 edition of a standard work. Bigger than ever, and more pictures.

HISTORY OF U. S. NAVAL OPERATIONS IN WORLD WAR II: Vol. X: The Atlantic Battle Won. By Samuel Eliot Morison. Atlantic Little, Brown & Company, 1956. 399 Pages; Illustrated; Index; \$6.00. The tenth volume in this series covers the period May 1943 to May 1945, when the Nazi submarine menace in the Atlantic was defeated.

THE HORSE SOLDIERS. By Harold Sinclair. Harper & Brothers, 1956. 336 Pages; \$3.95. A novel based on Grierson's Raid—very convincing fiction by an author who apparently understands soldiers and knows his Civil War history.

JUBILEE. By John Brick. Doubleday & Company, 1956. 320 Pages; \$3.95. A martinet regimental commander in the Civil War, scholarly research into the battle for Atlanta, and the other ingredients to help the reader believe that fiction is almost as good as history, and probably more pleasant reading.

KOREA TOMORROW: Land of the Morning Calm. By Kyung Cho Chung. The Macmillan Company, 1956. 384 Pages; Illustrated; Index; \$5.95. Written by an instructor at the Army Language School, this is a product of both scholarship and intimate day-to-day knowledge. Covers the history, social customs, religion, language and literature, and economic and political structure of a country that shows no promise of lessening importance to the United States in general, and the Army in particular. The bibliography will be especially useful to students of Korea.

MR. FRANKLIN. Edited by Leonard W. Labaree and Whitfield F. Bell, Jr. Yale University Press, 1956. 61 Pages; Illustrated; \$3.75. The less-public thoughts of a man of wide interests, much wisdom, and the human touch. Illustrated with six beautiful full-page paintings, it is a fitting display piece to commemorate this great American's 250th anniversary.

THE PROPER STUDY OF MANKIND: An Inquiry Into the Science of Human Relations. By Stuart Chase; Revised edition; Harper & Brothers, 1956. 327 Pages; Index; \$4.00. A completely reorganized edition of a book that first came out in 1948. Designed for the general reader who wants to know what makes individuals and groups behave as they do. More sociology than psychology.

THE REVOLT OF GUNNER ASCH. By Hans Hellmut Kirst. Little, Brown & Company, 1956. 311 Pages; \$3.95. A novel of the pre-World War II German Army. Gunner Asch, an "operator type," tries a subtle revolt against his noncoms by using their own weapons of sticking to regulations, but the system is too much for him—it engulfs him rather than defeating him. The author has lived the part; authenticity shines through every page.

STANDARD & POOR'S SELECTING STOCKS TO BUY FOR PROFIT. By Carl Roth and John T. McKenzie. Henry Holt & Company, 1956. 263 Pages; \$4.95. A most peculiar mixture of advice and recommendations, unintelligible to the tyro and not of much help to the initiated. Al-

most half the book appears to be reprints from Standard and Poor's guide which any broker will give a customer or prospective customer gratis.

TOO MUCH! Cartoons by R. Simms. Charles E. Tuttle Company, 1956. \$1.00. Cartoons about soldiers in Korea, leaning heavily for humor on anachronism and the differences in RA and AUS designations.

THE 25th MAN. By Ed Morrell as told to Mildred M. Ward. Vantage Press, 1955. 373 Pages; Illustrated; \$3.75. The autobiography of the man who became the hero of Jack London's *Star Rover*, first published in 1924 and reissued this year. Basically a prisoner's story of the horrors of our jails at the turn of the century, it offers a tinge of mysticism relating to the triumph of mind over body. Problematical as to whether it is part of the answer to brainwashing, since not many men would have the apparent strength and faith of Morrell.

THE WEST OF PHILIP ST. GEORGE COOKE, 1809-1895. By Otis E. Young. Arthur H. Clark Company, 1955. 393 Pages; Index; \$10.00. A scholarly work, yet gratifyingly readable, which imparts the true flavor of the middle fifty years of the nineteenth century, plus the life story of an outstanding soldier.

WITH BEAUREGARD IN MEXICO: The Mexican War Reminiscences of P. G. T. Beauregard. Edited by T. Harry Williams; illustrated by M. Ethel Buvens. Louisiana State University Press, 1956. 116 Pages; Index; \$5.00. Williams's 20-page introduction "makes" this rather boastful and complaining fragmentary diary. The book's value lies in the picture it gives us of the Mexican War as the training ground for the Civil War, and of its insight into the character of one of the South's more controversial generals.

YANKEE REPORTERS, 1861-65. By Emmet Crozier. Oxford University Press, 1956. 441 Pages; Maps; Index; \$6.00. A former war correspondent and all-around newsman presents the fruits of years of research into a field that has been the subject of much misinformation and misconception. All commanders must deal with reporters in time of war; future commanders could do worse than to read of the mistakes made in dealing with newsmen in the Civil War.

YEARS OF TRIAL AND HOPE, 1946-1952; Volume II of MEMOIRS, by Harry S. Truman. Doubleday & Company, 1956. 495 Pages; Index; \$5.00. The second volume of what may well become the most controversial memoirs of our times. This volume covers the MacArthur controversy, among others, and has brought forth even more reaction among Mr. Truman's contemporaries than the previous volume.

of the life of the Confederate soldier, in camp, on the march and on the battlefield fields of the Western campaigns from 1861 to surrender. Nearly a century later, today's military men can profitably read

these pages for a better insight into the psychology of the American soldier.

Johnny Green and five thousand other Kentuckians wanted no part of their

formed the so-called Orphan Brigade, the origin of whose name is disputed. At all events the Brigade was "orphaned" from home during its entire existence and never had a chance to get replacements

from its native state. By May 1864 the Brigade numbered only eleven hundred men and because many men were wounded several times in the next four months, that period alone counted seventeen hundred killed and wounded.

That was the price that had to be paid for the prestige of being a *corps d'élite*. The Orphan Brigade in the offensive was usually assigned a key position in the attack, and it was ordinarily the rearguard in retreat. Its military experiences give a vivid picture of Civil War tactics and techniques, and show the results of increased fire power and the practice of field fortifications. The Brigade even planted artillery shell in the roads to serve as a rudimentary kind of land mine.

The resourcefulness of these American soldiers in the midst of constant hunger and inadequate shelter is an inspiring and sometimes amusing story. The tricks they used to get a rare drink of whiskey and the subterfuges of the gamblers and many another episode and anecdote show that there is nothing new under the sun in a soldier's life.

The endpaper maps of the western theater of operations show graphically the hundreds of miles covered by the Orphan Brigade in its three and a half years' service for the Confederacy. In addition, outline maps of Shiloh, Stones River, Chickamauga, Missionary Ridge, Chattanooga to Atlanta and the Atlanta Campaign are helpful visual aids in following the description of these battles and campaigns in Johnny Green's journal.

Serviceable Book

MILITARY JUSTICE IN THE ARMED FORCES

By Robinson O. Everett
Military Service Publishing Company, 1956
350 Pages; \$5.00

Reviewed by

COL. FREDERICK BERNAYS WIENER

Here is another text on military law, this one by an author who for two years served as a Commissioner of the Court of Military Appeals. (The foreword was written by the late Judge Brosman the day before his untimely death.)

The obvious norm for comparison is *Military Law Under the UCMJ* by Professor Aycock and Colonel Wurfel (reviewed in the April 1955 issue). While the Aycock-Wurfel work is more detailed, particularly in connection with decisions on instructions and the details of procedure, and while both books are competently constructed and hence most useful, the Everett volume seems more valuable if one were forced to choose a single modern text.

Part of Everett's advantage is that he wrote later, and is consequently more up-to-date. He treats of the Supreme Court's decision in *Toth v. Quarles* and the habeas corpus case of Mrs. Covert, both decided in November 1955. He

omits much of the historical matter that Aycock and Wurfel included, which is not missed, though both texts might profitably have included the transitional historical material that bridges the gap from Winthrop to the UCMJ, and thus would render more meaningful and understandable many provisions of the existing Code. Everett relegates decisions on instructions to the several services' manuals on that subject, which detracts somewhat from the usefulness of the present volume to the practitioner, but he includes a chapter on criminal investigations under military law that is a real contribution to that vital subject. Finally, his treatment of collateral attack on court-martial action in the civil courts appears to be somewhat more realistic, in the light of present-day trends, than that of Aycock and Wurfel, whose discussion of this still unsettled field reads more like a brief for one side than a dispassionate treatise.

With respect to the *Toth* case, Everett appears to overlook what to many lawyers is the heart of that decision, and which, because of its impact on the extent of military jurisdiction, may be of interest to lay military readers.

For many years, both the lower federal courts and the services (see MCM, sec. I, 1917 through 1951 editions) had assumed that the Fifth Amendment was a source of military law, and that the military jurisdiction was bounded by its clause that spoke of "cases arising in the land or naval forces." *Toth*'s case did so arise, but he was held not to be included within the basic constitutional grant of power "To make Rules for the Government and Regulation of the land and naval Forces."

The Supreme Court specifically held that the Fifth Amendment clause did not amount to a grant of power, and while that ruling came as a shock to the military bar, which (like many courts) had long proceeded on the opposite assumption, a moment's reflection should suffice to show that the assumption was wrong. How could anything in the first ten Amendments possibly be a grant of power, when it is plain as a matter of history that they were all intended as limitations on the power of the Federal Government, and were in fact the price exacted for the ratification of the Constitution?

Just how far military jurisdiction will ultimately be held to extend cannot now be predicted, and indeed there are presently pending in the courts several cases involving the power to court-martial dependents and civilian employees. We shall all be better informed on these vital points a year or two hence.

Mr. Everett has written a most serviceable book, which every military lawyer will want, and which serves as an excellent text on military law for soldier and civilian lawyer alike.

STILL ONLY \$1.00 **Handbook and Manual for the NCO**

Orders for *Handbook and Manual for the Noncommissioned Officer* at the special \$1.00 price have been so heavy that we have decided to hold the offer open a few more weeks.

We are selling this \$2.50 book for \$1.00 because parts of it—pay data, and some references and technical information—are obsolete. Some of this type of information changes almost from day to day in the Army.

But the *important* parts of the book are still fresh and up-to-date—sections on LEADERSHIP, HOW TO TEACH, HOW TO STUDY, RELATIONSHIPS WITH YOUR MEN, SOCIAL CONDUCT, DUTIES AND RESPONSIBILITIES OF THE NCO, and others.

These are the things that will make or break an NCO, or help the private who is bucking for stripes.

This is a value no soldier or unit can afford to miss. Order your copies now.

To Individuals . . . \$1.00 per copy

To Units Only . . . 6 for \$5.00

100 for \$75.00

Order from

COMBAT FORCES

Book Service

1529 18th St., N.W., Washington 6, D.C.



Report from your AUSA CP

Ballots are coming in for Annual Election of Officers. Ballot and instructions appeared on pages 58 and 59 of March issue. None opened as of this writing; Tellers' Committee is yet to be appointed. Your Executive Council hopes that all members will vote, to make the Association truly representative of its membership.

Several alert members have written to ask what happened to the service the Association formerly rendered to those who wanted calling cards, wedding invitations and other types of engraving. Engraving service was dropped because it was costing your Association hundreds of dollars each year; the volume was never large enough to justify the time the service took from employees' work-day. General Harris, Associate Editor and former Editor of Antiaircraft Journal, has taken on the service as a personal, after-hours, activity. Write to him at the Association offices.

Members who have long desired Association lapel button will have their wish. About 1 April we will have available Association seal in dull gold, 7/16 inch in diameter, with screw back and positioning prongs. Price is \$1.00, postpaid; no discount.

One of the joys of being your Secretary is the correspondence with editors and other executives of like associations and publications in other countries. The Forces Magazine, British military publication, formerly The Fighting Forces, edited by Major General H. Essame, said of us in December, 1955 issue: "This monthly journal is indispensable to all who wish to understand American military mentality." Our feeling about The Forces is mutual; this brightly edited publication offers wide range of British military thought, with heavy but far from exclusive emphasis on history and

Officers and Executive Council of the Association of the U. S. Army

PRESIDENT

Lt. Gen. Walter L. Weible, USA

ASSISTANT SECRETARY

Col. Robert F. Cocklin, Arty-NGUS

VICE PRESIDENT

Maj. Gen. Donald P. Booth, USA

SECRETARY

Col. Arthur Symons, Arty-USAR

ASSISTANT TREASURER

N. J. Anthony

EXECUTIVE COUNCIL

For the term ending June 1956

Gen. W. B. Palmer, USA

Lt. Gen. Clyde D. Eddleman, USA

Maj. Gen. W. F. Marquart, USA

Maj. Gen. James C. Fry, USA

Maj. Gen. H. McK. Roper, USA-Ret.

Maj. Gen. Louis W. Prentiss, USA

Brig. Gen. John B. Moore, NGUS

Col. Alex J. Robinet, Inf-USAR

Col. George V. Selwyn, Arty-NGUS

Capt. John H. Bolton, Jr., CE-NGUS

For the term ending June 1957

Asst. Sec. of the Army Hugh M. Milton II
(Maj. Gen.-USAR)

Lt. Gen. James M. Gavin, USA

Maj. Gen. W. H. Abendroth, NGUS

Maj. Gen. Raleigh R. Hendrix, USA

Col. Charles W. McCarthy, Inf-USA

Col. Charles A. H. Thomson, Inf-USAR

Col. William B. Bunker, TC-USA

Col. W. E. Maulsby, Jr., Armor-USA

Col. George I. Forsythe, Inf-USA

Capt. Sam W. Sacra, Armor-USAR

For the term ending June 1958

Maj. Gen. William S. Lawton, USA

Maj. Gen. James D. O'Connell, USA

Brig. Gen. Theodore S. Riggs, USA

Brig. Gen. W. C. Westmoreland, USA

Brig. Gen. Philip F. Lindeman, USAR

Col. John Lemp, Arty-USAR

Col. Walter F. Ellis, Arty-USA

Col. Harold G. Haskell, Arty-USA

Col. A. D. Surles, Jr., Inf-USA

MSgt. Eugene F. Britti, Inf-USA

"The Association of the U. S. Army shall be an organization wherein all who are in accord with its objectives may join in the exchange of ideas and information on military matters, and in fostering, supporting, and advocating the legitimate and proper role of the Army of the United States and of all its elements, branches, and components in providing for and assuring the Nation's military security." (Statement by the Executive Council, Association of the U. S. Army; adopted 14 December 1953.)

traditions, plus current problems. Address is D.A.P. (Sussex) Ltd., Dolphin Road, Shoreham-by-Sea, Sussex, England. Published quarterly, American subscriptions are \$2.00, postpaid.

Association and magazine have always had friends beating the bushes for new members. Some officers (not enough) believe strongly that it is military duty to belong to Association; so inform their subordinates. When this point is argued by those who believe too-strong urging smacks of coercion, our thoughts return to Colonel T. M. Chase, commanding 60th CA(AA) on Corregidor. On 16 December 1941, while Japs were pounding and AA was quite busy, Colonel Chase sent then editor of Coast Artillery Journal letter with Treasury check to cover 33 subscriptions, indicating this made the unit 100% in Association memberships. Letter was received in regular morning mail delivery, water-stained and torn, on 13 June 1942. Spirit like this indicates a superior unit; 60th CA's record in early days of World War II bears out this contention.



COL. FORSYTHE

When we announced election of Col. GEORGE FORSYTHE to Executive Council in February issue report, we were unable to publish his photograph because he was on Christmas leave somewhere northwest of Little Big Horn. Glance to the left will show you omission is now repaired.

Great portion of the staff effort is devoted to getting new members for the Association. It is particularly heart-warming when we find individuals in the field supporting the staff in these efforts. There are several outstanding instances of this support. Colonel Glenn J. McGowan, Headquarters 11th Airborne Division, has been personally responsible for lining up many of the several hundred new members who have joined the Association from the 11th Airborne Division in recent months. Lieutenant Colonel Richard W. Bowden, Adjutant of the Seattle Army Terminal in Seattle, Washington, also has forwarded membership-applications for a large number of new members over the last couple of months. In a most recent mail 67 membership-subscriptions were received from Commanding Officer, 2d Battalion, 32d Infantry, at APO 7, each accompanied by full payment for the membership. This sort of cooperation from the field is what we need.

Organization Committee published in February issue an article outlining proposed changes and requesting that members write in with their views. Organization Committee also wrote to senior members of the active Regular Army, senior retired Regular Army personnel, outstanding members of the National Guard and Army Reserve, as well as some prominent civilians who had indicated an interest in our Association. With this letter was enclosed a copy of the February issue; opinions on the proposed reorganization were solicited. Over thirty-five have already responded and the letters are still coming in. Response has been overwhelmingly in favor of proposed reorganization; many constructive suggestions have been received. These letters have been most helpful to the Committee and suggestions have already been incorporated into the plans which the Council will consider. Some have been reluctant to see the passing of the participation of active-duty personnel on the governing body; in most instances there is recognition of necessity of change if Association is to fulfill broadened aims.

YOUR SECRETARY

BOOKS OF PERMANENT VALUE



Histories of America's Wars—Formal, Informal and Pictorial

Books which are boxed in bold type have not appeared in the Book List before.

COMPREHENSIVE HISTORIES OF AMERICAN WARS

American Campaigns. *Col. Matthew F. Steele.* Long used as a text at West Point, Steele's brief studies of campaigns from the Revolution up to the Spanish-American War are classics. Text only, without maps. \$6.00

The American Wars: A Pictorial History from Quebec to Korea. *Roy Meredith.* America's wars as seen by artists in uniform. Profusely illustrated. 320 pages. \$10.00

Decisive Battles of the U.S.A. *Major General J. F. C. Fuller.* The strategy and tactics of the great battles that have shaped American history. \$6.50

THE AMERICAN REVOLUTION

From Lexington to Liberty. *Bruce Lancaster.* An excellent one-volume history of the Revolution. A good place to start your reading on this much-neglected war. \$5.75

War of the Revolution. *Christopher Ward.* The most comprehensive and accurate history of the American Revolution in print. Many maps. Two volumes. \$15.00

THE INDIAN WARS

Indian Wars of the West. *Paul I. Wellman.* Here in one volume are the principal campaigns between the Indian and the settler for control of the West. Illustrated. \$5.00

THE CIVIL WAR

Andersonville. *By MacKinlay Kantor.* Both the story of the Confederates' infamous Andersonville prison and, through the prisoners, the story of the Civil War. A novel, but well enough researched that we include it under "History." \$5.00

The Civil War in Pictures. *Commentary by Fletcher Pratt.* Here is the Civil War as newspaper artists of the day saw it and reported it. More than 300 illustrations. \$10.00

Well-Rounded History—

In the three books below, Bruce Catton has written both an accurate military history of the Civil War and an unusually perceptive and human account of what war meant to the people who took part in or were caught by it. He was awarded a Pulitzer Prize in history for the final volume, *A Stillness at Appomattox.*
Mr. Lincoln's Army \$4.00

Glory Road \$4.50

A Stillness at Appomattox \$5.00

Decisive Battles of the Civil War. *Lt. Col. Joseph B. Mitchell.* The best one-volume summary of the Civil War to be found. If you're just beginning your reading in this period, begin it with this book. Excellent maps. \$4.00

Lee's Lieutenants. *Douglas Southall Freeman.* An acknowledged classic as a combined history of major Civil War battles and study of command. In three volumes.

The Set \$22.50
Each volume \$ 7.50

Lincoln Finds a General. *Kenneth Williams.* May be the finest of all Civil War histories when complete. Volumes I and II cover the war in the East up to Grant's assumption of command. Vol. III covers Grant's first year in the West.

Vol. I & II \$15.00
Vol. III \$ 7.50

U. S. Grant and the American Military Tradition. *Bruce Catton.* An analytical study of Grant's impact on military concepts and of the concepts which had influenced him. \$3.00

WORLD WAR II

THE WAR IN OUTLINE

Struggle for Europe. *Chester Wilmot.* This is the best overall history we have in one volume of the European Campaign. No comparable history exists for the Pacific. \$5.00

TACTICAL STUDIES OF INDIVIDUAL BATTLES AND BRIEF CAMPAIGNS

The following monographs, prepared by the Office of the Chief of Military History, Department of the Army, have long been acclaimed as ranking with the best tactical studies in the history of warfare.

Anzio Beachhead	\$1.50
Makin35
Omaha Beachhead	\$1.75
St. Lo	\$1.25
Utah Beach to Cherbourg	\$2.00
Volturno40

Bastogne. *Brig. Gen. S. L. A. Marshall.* The standard study of the Bastogne operation, developed by Marshall's post-combat interviews and other research. Cloth, \$3.00. Paper, .25

ORDER FORM COMBAT FORCES BOOK SERVICE 1529 18th Street, N.W., Washington 6, D. C.

Name _____

Street Address _____

Town or APO _____ Zone _____ State _____

I ENCLOSE \$ _____ Send free Unit History list.

Charge orders cannot be accepted. Payment must accompany order.

I am a member of the Association and have deducted my 10% member's discount.

Straight 10% discount to members.

(CF 4-56)

Island Victory. *Brig. Gen. S. L. A. Marshall.* The Battle for Kwajalein as Marshall reconstructs it at the fighting level. This book was the first result of the now-famous post-battle interview technique. \$2.00

Railroading in Eighteen Countries. *By Maj. Gen. Carl R. Gray, Jr.* The vital part played by our Military Railway Service from 1861-1953, but especially in WWII and Korea. \$5.00

WORLD WAR II IN THE AIR

The Army Air Forces in World War II. *W. F. Craven and J. L. Cate.* The authors, professional historians, have written this comprehensive history on the basis of official AAF files, enemy records, interviews, and the results of other research. It covers equipment, training, and operations in all theaters of war.

- Vol. I Plans and Early Operations, \$8.50
Vol. II Europe: Torch to Point Blank, \$8.50
Vol. III Europe: Argument to VE Day, \$8.50
Vol. IV Guadalcanal to Saipan, \$8.50
Vol. V Pacific: Matterhorn to Nagasaki, \$8.50
Vol. VI Men and Planes, \$8.50

THE NAVY AND MARINES IN WORLD WAR II

The U. S. Marines and Amphibious War. *Philip A. Crowl and Jeter F. Isely.* The authors show the development of amphibious war techniques as they developed through Marine actions in WWII and before. \$7.50

Uncommon Valor. *By Marine Combat Correspondents.* Brief histories of each of the six World War II Marine Divisions. \$3.00

History of U. S. Naval Operations in World War II. *Samuel Eliot Morison.* Admiral Morison and his staff are still engaged in writing the Navy's World War II history. This is "official" history in the sense that all Navy and enemy records are available to the historians, but the judgments are those of Admiral Morison, the outstanding naval historian of our time.

- Vol. I Battle for the Atlantic, \$6.00
Vol. II Operations in North African Waters, \$6.00
Vol. III Rising Sun in the Pacific (Early Pacific Operations), \$6.00
Vol. IV Coral Sea, Midway, and Submarine Actions, \$6.00
Vol. V Struggle for Guadalcanal, \$6.00

Vol. VII Aleutians, Gilberts and Marshalls, \$6.00

Vol. VIII New Guinea and the Marianas, \$6.00

Vol. IX Sicily, Salerno, Anzio, \$6.00

Defeat at Sea. *C. D. Bekker.* A former German Navy officer writes of the Battle of the Atlantic from the German side, especially the U-boat campaign. Illustrated. \$3.95

WORLD WAR II—THE WAR ON LAND, LOGISTICS, AND THE HIGH COMMAND

The U. S. Army in World War II. Published by the Office, Chief of Military History, U. S. Army, under the direction of Dr. Kent Roberts Greenfield, Chief Historian. The volumes which follow are part of the greatest effort ever made in the field of military history to document and evaluate the conduct of war. It will be a rare student who will read all of the books listed below, but it will also be a rare soldier who cannot find in many of them information that will be both interesting and valuable to him.

Approach to the Philippines. *Robert R. Smith.* \$6.25

Chief of Staff: Prewar Plans and Preparation. *Mark S. Watson.* \$4.25

Cross-Channel Attack. *G. A. Harrison.* A book that has become the standard work on organization of large-scale combined operations. \$6.75

Fall of the Philippines. *Louis Morton.* \$5.25

The Lorraine Campaign. *Hugh M. Cole.* A brilliant and unusually detailed study of a great land battle. Goes down to battalion level. \$11.00

Okinawa: The Last Battle. *Appleyard, Burns, Gugeler and Stevens.* \$8.50

Persian Corridor and Aid to Russia. *T. E. Vail Motter.* History and evaluation of a unique logistical operation. \$4.00

Procurement & Training of Ground Combat Troops. *Palmer, Wiley and Keat.* \$5.25

The QM Corps—Organization, Supplies, Service. *Erna Risch.*

Vol. I \$3.75

Vol. II *Risch and Kieffer.* \$4.00

Seizure of the Gilberts and Marshalls. *Philip A. Crowl and Edmund G. Love.* \$5.75

Strategic Planning for Coalition Warfare—'41, '42. *Maurice Matloff and Edwin M. Snell.* The beginnings of planning for global war. \$3.75

Stilwell's Mission to China. *Charles F. Romanus and Riley Sunderland.* An able, unbiased account of our tragic errors of judgment in China. \$5.50

The Supreme Command. *Forrest C. Pogue.* The workings of the Supreme Command in the invasion of Europe. \$6.50

Three Battles: Arnaville, Altuzzo and Schmidt. *Charles B. MacDonald and Sidney Mathews.* Three of the best studies of battalion and regimental actions ever written. \$4.50

The Transportation Corps. *Chester Wardlow.* \$3.75

War Against Germany & Italy: Mediterranean & Adjacent Areas. *Pictorial.* \$4.00

Washington Command Post: The Operations Division. *Ray S. Cline.* \$3.75

Logistical Support of the Armies, May '41-Sept. '44, ETO. *Roland Ruppenthal.* \$4.50

Organization & Role of the Army Service Forces. *John D. Millett.* \$4.25

Leyte: Return to the Philippines. *M. Hamlin Cannon.* \$6.75

Women's Army Corps. *Mattie Treadwell.* \$6.25

THE WAR IN KOREA

Battle Report: War In Korea. *Walter Karig.* The Navy's part in the Korean War. \$6.00

From the Danube to the Yalu. *Gen. Mark W. Clark.* General Clark's account of his dealings with the Communists in Austria and his period of command in the Far East. \$5.00

General Dean's Story. *Maj. Gen. Wm. Dean.* General Bill Dean tells the story of the early days of the Korean War and of his years of captivity. \$5.00

Korea 1950. *OCMH, Dept of the Army.* Pictorial. \$1.25

COMMUNISM AND COLD WAR

Capital. *Karl Marx.* The basic document of Communism. \$2.45

Communist Guerrilla Warfare. *Brig. C. Aubrey Dixon and Otto Heilbrun.* A study of Communist guerrilla warfare methods and how they may be combatted. \$4.50

Red China's Fighting Hordes. *Lt. Col. Robert B. Rigg.* Chinese military organization and doctrine. \$4.00

Soviet Arms & Soviet Power. *Gen. Augustin Guillaume.* Russian military organization and doctrine during and just after World War II. \$3.50

Soviet Military Doctrine. *Raymond L. Garthoff.* More information on Soviet military doctrine than any other unclassified publication. \$7.50

Soviet Military Law & Administration. *Harold J. Berman and Miroslav Kerner.* Evaluates the Soviet system as a means of maintaining discipline, efficiency and morale. \$4.00

Lessons In Leadership!

Learning to lead by leading in combat is effective but likely to prove fatal. You'll have a better chance—and prove a better leader—when the chips are down if you've learned the lessons those who have been there before can teach. These three books can give you battle-tested information on troop leading, at every level and in every arm and service. Order your copies now!



INFANTRY ATTACKS

By General Field Marshal Erwin Rommel

Translated by Lt. Col. G. E. Kiddé

Infantry Attacks is a detailed account of General Field Marshal Erwin Rommel's service with a mountain infantry battalion in World War I. Rommel kept notes of precisely what actions he took under certain conditions, how he used terrain and the element of surprise in his battle plan, the information he gave his juniors. You'll find it all in this book, including the fact that much of Rommel's lifelong success as a leader came from his willingness to work unceasingly to be sure that his information about the enemy was better than their information about him.

Tactics have changed since World War I, and will again, but nowhere in print will you, the leader, find a more practical account of the things every leader must always do to insure the success of troops in combat. Thousands of officers found this book invaluable when it was first published in English during World War II. You will profit from it, too.

\$5.00

COMBAT ACTIONS IN KOREA

By Major Russell A. Gugeler



Here is the war in Korea—at the fighting level. These accounts of outstanding small-unit actions were written by a trained soldier-observer and historian from on-the-spot observations and interviews with the men who did the fighting. From Major Gugeler's vantage point, you can see good leadership and bad, brilliant decisions and stupid ones—as they were made. Soundly researched and brilliantly

written, this is a book that every troop leader of a combat unit owes it to himself to read. Officers and NCOs alike can profit from the lessons it teaches.

\$5.00

COMBAT SUPPORT IN KOREA

By Capt. John G. Westover



Medics, engineers and signalmen; ordnance, quartermaster, chemical and transportation corps troops—all are necessary if the front-line soldier is to accomplish his mission. The Korean war put a severe strain on all combat support units. Installations had to move fast and often; men and machines were taxed to the limit of endurance; it took courage and ingenuity to get supplies through to combat troops.

These post battle interviews show clearly the hazards combat support units face in modern war—and how ingenious and courageous people went about solving them.

\$5.00

COMBAT FORCES BOOK SERVICE

1529 18th Street, N.W.

Washington 6, D. C.